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NEW POULTRY HOUSE OF GEO. M. LEFFEL, SPRINGFIELD, OHIO.
Six Thousand Square Feet of Floor for Fowls and Chicks.

The New York Show.

The tenth annual exhibition of the New York Poultry and Pigeon Association was most thoroughly enjoyed by everybody, and there are many reasons therefor. A prominent reason was well expressed by Zimmer, when he said: "Tis the last show of the year, the wind up. After New York we can go home and stay at home." Undoubtedly that feeling contributed not a little to the general enjoyment, but there was ample reason for pleasurable sensations in the generally high excellence of the show, the brightness and beauty of the Garden, with its tasteful decorations,—aided by the perfect show weather—and it is well, perhaps, to accept the very evident fact without question.

When we say that everybody enjoyed the New York show, we do not want to be understood as saying that there was no grumbling; that would be too much to expect in this fallible world; the chronic kicker, like the poor, is "always with us," and there was now and then an undertone of dissatisfaction. For example, one party complained that the Garden was too cold. "I'm sure I've taken a severe cold here, and I'm going out to get a 'nip' of 'rock and rye' to fend it off. Come out and take some?" We thanked him, and declined his invitation, and called his attention to the obvious fact that a moderately cool hall was much better for the birds than the usually very much overheated one, and that as nine-tenths of the visitors, especially the ladies and children, wore their outdoor wraps, the cool hall was right. Another grumbler was finding fault with the way the prize ribbons were placed; he "would have given this bird first, and that first prize bird third or fourth," etc. Was there ever a show where the judging satisfied everybody?

Perhaps the most prominent criticising of the judging was in the White Wyandotte alley, where the first prize cockerel was denounced as carrying his tail too high. We came upon a group of White Wyandotte men discussing this "error in judging," and they appealed to us to give our opinion upon it. After looking carefully through the class, we gave it as our decided opinion that the bird was easily the first there, and, barring tail carried too high, the best White Wyandotte cockerel of the year. His head is wonderfully fine, and all parts excepting tail almost perfect. Should a conspicuously good bird be thrown down for one minor defect? We think not, and think the average kicker overlooks the general excellencies and possibly nearly perfect parts of a bird directly he discovers one imperfection. He dilates upon the one imperfection to the total eclipse of all the good points, and fails to consider that it is the "average" of all the parts that should determine the judgment.

The total entries at New York this year show some five hundred increase over last year, the chief gain, however, being in bantams and pigeons, which were out in great force, pigeons especially so. The attendance this year seemed to us "thinner" than in previous years; but as we left before the last day of the show, we do not know how the gate receipts compare. While considering this point, we wish to remark that both the show advertisements and press notices seemed to us considerably less prominent and helpful than in previous years. We bought several papers each day to assure ourselves upon this matter, and think the saving on advertising bills may have helped to the slim attendance at the show. One thing we were glad to note, was the absence of hawkers of press tickets in front of the Garden. Last

year we counted four of those press ticket sellers there at one time, and how to get over giving out complimentary tickets (in return for press notices) in such numbers that they seriously cut down gate receipts, is a puzzling question. Fewer complimentary tickets means diminished press notices, and a shrinkage in attendance; there seem to be two horns to the dilemma.

The lesser attendance was, of course, the cause of fewer sales, our inquiries eliciting the fact that buyers were few and far between this year—the one conspicuous exception to this statement being Mr. Crangle, of Fishers Island Farm, who told us he had made some very good sales. Indeed, the *Tribune* of Thursday, 2d inst., closed its notice of the show as follows:—"Trade is especially active in turkeys and Plymouth Rocks, and a large concern at Fishers Island is mentioned as a heavy seller." Crangle ought to have "stood treat" to the *Tribune* man for that.

A conspicuous fault at the New York show this year was lack of seats, the opportunities for sitting down to rest a few minutes, and enjoying the view over the Garden, being conspicuously absent. This was due to the removal of the first row of boxes along the sides, (which slightly increases the floor space, but makes the hall less symmetrical as a whole), and the crowding of the banks of chair seats of the first gallery back to the wall to make room for the pigeons. This last made a fine place for the pigeons, but the combination of changes cut off the seating opportunities almost altogether, to the consequent suffering of many, especially ladies and children. They have, in New York, a society for the prevention of cruelty to animals; why not one to prevent cruelty to human beings? An opportunity to sit and rest for a few minutes, perhaps to collect

one's scattered thoughts, perhaps to chat a few moments with a friend, or only to rest tired limbs and back, are a positive necessity in such a place, and should not have been overlooked by experienced managers.

The part of the show which was the greatest attraction was the incubator and brooder room, and that was crowded, (uncomfortably so), almost all the time. The Cyphers, Homer City, Star, Pineland, Des Moines, and Monitor incubator companies; Mr. Russ, N. Y. agent for the Prairie State, and E. W. Andrews & Co., ("The Universal Hatcher") made exhibits—and the machines and brooders, full of downy chicks and ducklings, were constantly surrounded by visitors, who plied the men in charge with questions and carried off armfuls of circulars and catalogues. Mr. Russ, of the Excelsior Poultry Wire and Supply Co., had an attractive display of poultry supplies and appliances, which, with his Prairie State incubator and brooder display, kept him and two assistants pretty busy. The American Cereal Co. showed their line of poultry foods; the Bennett & Millett Co. had an exhibit of their clover meal, and were busy explaining its merits and advantages to the visitors; the F. W. Mann Co. showed a full line of the Mann bone cutters; and Wilson Bros. showed the "Daisy" bone cutters, a new "power" bone cutter being a prominent part of their exhibit.

The dressed poultry and eggs display was hardly what a great show like New York ought to put up. In speaking of this, Mr. Crawford said they had absolutely no room in which to put such an exhibit; neither has Mechanics' Building, for that matter, but the Boston show managers simply "made" a room, by putting up a matched boards partition in a suitable corner, and then they had one. A firm of poultry dealers (marketmen) put in a good display from the marketman's point of view, one of the attractions being a dozen magnificent squabs that average to weigh twelve pounds to the dozen; but of competitive exhibits there were almost none at all. Of eggs there was a large display by a dealer, and a few plates by individual exhibitors, the brown White Wyandotte eggs of W. E. Mack, Woodstock, Vt., being at one time adorned with a first prize ribbon, but mischievous youngsters were getting away with the prize ribbons on the egg table faster than they could be put on; and there are so many obvious errors in the catalogue it is quite impossible for us to tell who got the premiums.

These errors in the catalogue, due chiefly to carelessness in proof reading, are very glaring. Mr. Russ' Wire and Poultry Supply Co. appearing "Wine and Poultry Supply Co.," not inappropriate for some people we know, but hardly applicable to Mr. Russ. The Bennett & Millett Co. appears Mullett; A. C. Hawkins appears Hankins; Hartnest Farm is Harturst, etc. Such blunders are inexcusable; they are caused by poor (indifferent or careless) proof reading.

The marked catalogue, too, was very late, not being on sale until Thursday evening, to the no small inconvenience of many. At the office we were informed the delay was due to the delay in judging, and the delay in judging was caused by judges stopping now and then to chat with a friend who had come in, or some exhibitor who wanted to call especial attention to a bird. The remedy for this is easy—exclude the public (exhibitors included) until the judging is done, or (say) until two o'clock P. M. of judging day. If that is difficult, then shut off the aisles in which judging

is being done, excluding exhibitors and public from access to the judge while he is at work. Reform in this particular is very much needed.

The meeting of several specialty clubs brought together a good many partisans of the several varieties—the Minorca club meeting giving promise of some decidedly interesting developments. Wire pulling ran high for two or three days, but just before the time at which the meeting was called it transpired that differences had been compromised, and that the anticipated "fun" wouldn't materialize.

Some of the varieties were not out in great numbers, Light Brahmas, for example, showing but forty-four birds in the open class. We overheard a discussion between three newspaper men as to which of the various classes there was the keenest competition in, and each one of the three picked a different class; one said Barred Plymouth Rocks, another picked Buff Wyandottes, and the third picked Black Minorcas. Probably those three were the "hottest" classes.

The judging was by comparison, and the prizes were 1st, 2d, very highly commended, highly commended, and commended. For convenience we print them 1, 2, 3, 4, 5. The awards were:—

LIGHT BRAHMAS.—L. R. Whitaker, Brighton, Mass., 1 ck; 1, 5 hen. Albert L. Sessions, Bristol, Ct., 2 ck; 4 hen; 1, 2 ck; 1 pul. John L. Cost, Hagerstown, Md., 3, 5 ck; 5 ck; 5 pul. Norwood Farm, Buffalo, N. Y., 4 ck; 3 hen. A. A. Bailey, Middletown, Ct., 3, 4 ck. G. W. Hillson, Amenia, N. Y., 2 pul. James Vail, Jersey City, N. J., 3 pul; 5 pen. John Klee, Jr., Blauvelt, N. Y., 4 pul; 2 pen. F. D. Lesure, Winchester, N. H., 1 pen. Hartnett Farm, Framingham, Mass., 3 pen. C. P. Nettleton, Shelton, Ct., 4 pen.

DARK BRAHMAS.—Wm. A. Pease, Middletown, Ct., 1 ck; 5 hen; 3 ck; 3, 4, 5 pul; 2 pen. Sage & Garside, London, Ont., 2 ck; 4 hen. L. B. Minich & Son, Carlisle, Pa., 3 ck; 2 ck. Thorpe & Scott, London, Ont., 4 ck; 3 hen; 1 ck. Hempstead Farm, Hempstead, L. I., N. Y., 5 ck; 1, 2 hen; 4, 5 ck; 1 pen.

BUFF COCHINS.—Oakland Farm, Taunton, Mass., 1, 2 ck; 1, 2 hen; 1, 2 ck; 1, 2 pul. Pierce Bros., Winchester, N. H., 3 ck; 5 ck; 5 pul. Lynnhurst Poultry Yards, Glassboro, N. J., 4, 5 ck, hen; 3, 4 ck; 2, 3 pen. Geo. Ball, Rahway, N. J., 4 hen; 4 pul; 1 pen. R. R. Topping, Amsterdam, N. Y., 5 hen; 5 pen. R. P. Thompson, 4 pen.

PARTRIDGE COCHINS.—Geo. W. Mitchell, Bristol, Ct., 1, 2, 3, 5 ck; 1, 2, 4 hen; 1, 2, 3, 5 ck; 1, 2, 4, 5 pul. Walter C. Baylies, Taunton, Mass., 4 ck; 2 hen; 4 ck; 3 pul.

BLACK COCHINS.—F. W. Mercer, New London, Ct., 1 ck; 2 hen; 3 ck; 2 pul. Thompson, 2 ck; 1 pen. N. H. Jones, Bridgeport, Ct., 3 hen. P. H. B. Frelinghuysen, Morristown, N. J., 4 hen; 2 pen. R. B. Millard, London, Ont., 2 ck; 3 pul.

WHITE COCHINS.—A. Reinhardt, Orange, N. J., 1 ck; 1 hen; 1 pen. Lynnhurst Poultry Yards, 2 ck; 2, 3, 5 hen; 3, 4 ck; 2, 4 pul; 4 pen. Thompson, 3, 5 ck; 4 hen; 2 ck; 5 pul; 3, 5 pen. Millard, 1 pul. Pease, 3 pul; 2 pen.

BLACK LANGSHANS.—Dr. F. M. Robinson, Pawling, N. Y., 1 ck; 1, 2, 3 hen; 2, 4 ck; 1, 2, 3 pul; 1, 3, 4 pen. R. P. Keasbey, New York City, 2, 3, 4 ck; 4, 5 hen; 3 ck; 2, 5 pen. C. Kissam, E. Orange, N. J., 1 ck. John A. Stewart, 3d, Short Hills, N. J., 7 ck; 5 pul. F. J. Schatzle, Danbury, Ct., 4 pul.

A. O. V. LANGSHANS.—All to Keasbey.

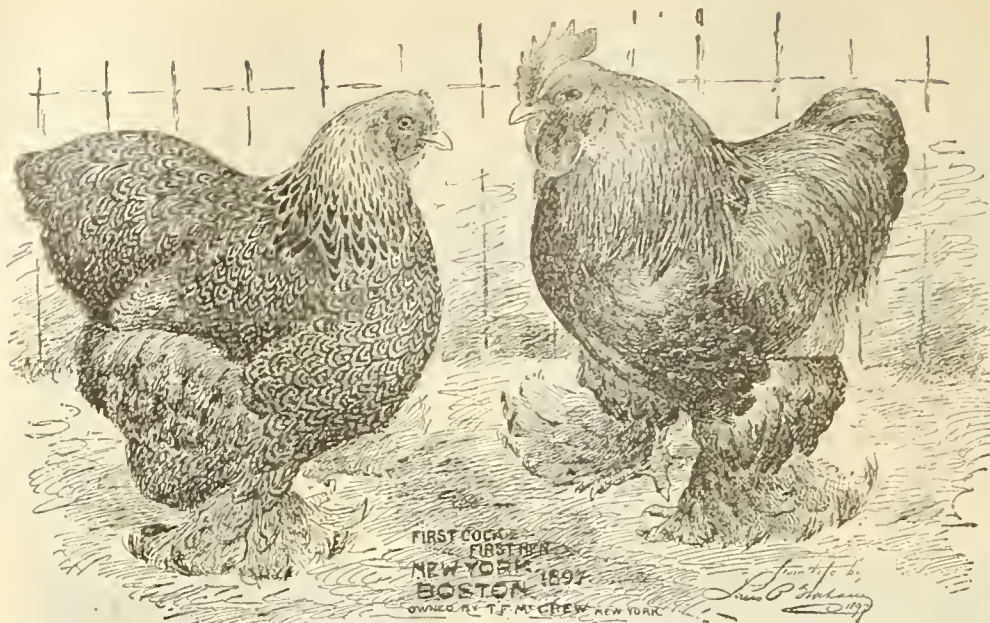
BUFF ORPINGTONS.—L. H. Bowlby, Washington, N. J., 1 ck. J. S. Warner, Washington, N. J., 2, 3, 4 ck; 1, 2 hen. C. E. Voss, Washington, N. J., 3, 4 hen; 1 pen.

BARRED PLYMOUTH ROCKS.—E. M. & W. Ferguson, Fishers Island, N. Y., 1 ck; 3 pen. C. H. Welles, Stratford, Ct., 1, 3 ck; 1, 2 hen; 2, 3, 4, 5 ck; 1, 2, 3 pul; 1, 2, 4 pen. J. H. Thompson, Jr., Patterson, N. Y., 2 ck. M. S. Gardner, Philadelphia, N. Y., 3 hen; 1 ck; 5 pul; 5 pen. G. M. Woods, Leaman Place, Pa., 4 hen; 1 ck; 5 pul. J. B. Kimenour, Belvidere, N. J., 5 hen. Wm. Hayner, Livingston, N. Y., 4 pul.

WHITE PLYMOUTH ROCKS.—E. M. & W. Ferguson, 1 ck; 4, 5 hen; 4 ck; 3 pen. Bailey, 2, 3, 4 ck; 1, 3 hen; 1 ck; 2, 4 pul. Ramsden & Green, Campello, Mass., 5 ck; 3 ck; 1 pen. Pitman & Pollock, New London, Ct., 2 hen; 2 pen. D. F. Blum, East Hartford, Ct., 2, 5 ck; 5 pul. Pollard's Poultry Farm, So. Attleboro, Mass., 3 pul. Dr. C. P. Stanbrough, Newburgh, N. Y., 4 pen.

BUFF PLYMOUTH ROCKS.—F. A. Purdy, Croton Falls, N. Y., 1 ck. James Forsyth, Owego, N. Y., 2 ck; 1 hen; 3 ck; 4 pul; 2 pen. Frank Kline, Spring City, Pa., 3 ck; 5 hen; 4 pen. A. C. Hawkins, Lancaster, Mass., 4 ck; 4 hen; 2 ck; 2 pul; 1 pen. B. N. Duclous & Son, Lenox, Mass., 5 ck. John E. Rooker, Washington, N. J., 3 hen. Topping, 1 ck. Clifford W. Beaman, Port Dickinson, N. Y., 4 ck; 3 pul. S. E. Gesner, Derby, Ct., 5 ck; 1 pul; 3 pen.

SILVER WYANDOTTES.—John T. Cothran, New Rochelle, N. Y., 2 ck; 2 hen; 2, 4 ck; 1 pul. J. S. Mayhew, Bethel, Ct., 3, 4 ck;



PARTRIDGE COCHIN BANTAMS.

Bred and Owned by T. F. McGrew, New York.

3 ck; 1 pul. J. C. Jodrey, Danvers, Mass., 1, 3 hen; 5 ck; 3, 4 pul. T. E. F. Holzhauser, Columbia, S. C., 1 ck.

GOLDEN WYANDOTTES.—Ira C. Keller, Prospect, O., 1, 3 ck; 2 hen; 2 ck; 1 pen. Jesse A. Moon, New London, Ct., 2 ck; 1 hen; 1 ck; 4 pul. F. Borman, Danbury, Ct., 3, 4 hen; 4 ck; 2, 3 pul. L. H. Davis, Port Jefferson, N. Y., 3 ck; 1, 5 pul.

WHITE WYANDOTTES.—Lebanon Poultry Yards, Lebanon, Pa., 1 ck; 2 hen; 2 ck; 1, 2 pul. Forsyth, 2 ck; 1 hen; 1 ck; 1 pen. W. H. Shute, Middletown, Ct., 3, 5 ck; 4 hen; 4 ck. Willowcrest Poultry Yards, Goshen, N. Y., 4 ck; 2, 3 pen. Geo. E. Godfrey, Brighton, Mass., 3 hen; 5 pul. Alfred E. Tyler, College Point, N. Y., 5 hen. C. E. White, Fox Chase, Pa., 3 ck. The Highlands, Silver Spring, N. Y., 5 ck. Pollard's Poultry Farm, 3 pul. Yelton Bros., East Orange, N. J., 4 pul.

BUFF WYANDOTTES.—C. S. Mattison, So. Shaftsbury, Vt., 1 ck; 1 hen; 1, 4 ck; 1 pul; 1 pen. Forsyth, 2 ck; 3 hen; 3 pul; 2 pen. Gesner, 3, 5 ck, 5 ck; 4 pul; 3 pen. Daniel Stauffer, Spring City, Pa., 4 ck; 2 hen; 5 pul. A. P. Groves, Chestnut Hill, Pa., 4 hen. D. C. Brownell, Shushan, N. Y., 2 ck. L. C. Piser, Shushan, N. Y., 3 ck; 2 pul.

BUFF LACED WYANDOTTES.—All to Keller.

BLACK WYANDOTTES.—All to Richard Oke, London, Ont.

A. O. C. WYANDOTTES.—Ezra Cornell, Ithaca, N. Y., 1, 2 male; 1, 2 female. Davis, 3 male, 3 female.

A. C. JAVAS.—All to Oke.

JERSEY BLUES.—All to H. J. & R. P. McConn.

W. F. B. SPANISH.—All to E. B. Gregory.

BLUE ANDALUSIANS.—Newton Cosh, Brantford, Ont., 1, 2 ck; 1 hen; 1, 3 ck; 1, 4 pul. Gray's Poultry Yards, Auburn, N. Y., 3 ck; 5 hen; 3 pul. John T. Morse, Jr., Boston, 4 ck; 4 ck. Herbert Hodgson, Albion, Ill., 2 hen. A. C. Keyser, Collegeville, Pa., 3, 4 hen; 2 ck. Henry Diecks, New York City, 2 pul.

WHITE LEGHORNS.—Coruall, 1 ck; 2, 5 hen; 1, 4 ck; 1 pen. J. H. Woodhead, Leicester, Mass., 2 ck, 3 hen; 5 pul. Elm Poultry Yards, Hartford, Ct., 3 ck; 4 hen; 2 pul; 2 pen. The Highlands, 4 ck; 1 hen; 4 pul; 3 pen. A. A. Hartshorn, Lebanon, N. Y., 5 ck; 2 ck. H. W. Billard, Brooklyn, N. Y., 5 ck. W. G. Vought, East Aurora, N. Y., 1 pul; 4 pen. J. A. Shineman, Canajoharie, N. Y., 3 pul.

BROWN LEGHORNS.—Herbert W. Smith, Islip, N. Y., 1 ck. Forsyth, 2 ck; 4 hen; 2, 4 ck; 1 pul; 1 pen. Geo. H. Burgott, Lawton's Station, N. Y., 3, 4 ck; 1, 5 hen; 1, 5 ck; 2, 5 pen. Dr. H. W. Dorsey, Hyattsville, Md., 5 ck, 3 hen; 3, 4, 5 pul; 3 pen. Chas. E. Powell, Gloversville, N. Y., 2 hen. W. W. Kulp, Pottstown, Pa., 3 ck. Geo. H. Morris, E. Orange, N. J., 2 pul. Thos. Peer, Fairfield, N. J., 4 pen.

BUFF LEGHORNS.—Cornell, 1 ck; 2, 3 hen; 2 ck; 1, 2 pul; 1 pen. E. C. Slater, Washington, N. J., 2 ck; 4 hen. Peer, 3 ck; 3 pen. Root & Gorham, Fairfield, N. J., 4 ck; 3 pul. Beaman, 1 hen. Harry M. Lamon & Co., Watertown, N. Y., 1, 3 ck; 1, 3 ck; 1, 3 ck. Ira Baughman, Spring City, Pa., 4 ck; 4 pul. L. S. Bache, Bound Brook, N. J., 2 pen.

R. C. BUFF LEGHORNS.—Alfred Thomas, Rockville, Ct., 2 ck; 1 hen; 3 ck. Frank S. Zwick, Seymour, Ct., 3 ck. L. E. Crumbling, Leesburg, Pa., 4 ck; 4 ck; 2 pul. Smith, 2 hen; 2 ck.

R. C. BROWN LEGHORNS.—Forsyth, 1 ck; 2 hen; 4 ck; 1 pul; 1 pen. Kulp, 2 ck; 1, 3 hen; 2 pen. W. G. Fronheiser, Pottstown, Pa., 1 ck. W. Theo. Wittman, Allentown, Pa., 2 ck. A. A. Gery, Reading, Pa., 3 ck.

R. C. WHITE LEGHORNS.—Forsyth, 1 ck; 2 hen; 1 ck; 1 pul; 1 pen. Oke, 2 ck; 1 hen; 4 ck; 2 pul. A. Babbitt, Oneonta, N. Y., 3 ck; 3 hen; 2, 3, 5 ck. N. W. Rosa, Schenectady, N. Y., 4 hen; 4 pul. Will C. House, Fort Plain, N. Y., 5 hen; 3 pul.

S. C. A. O. C. LEGHORNS.—J. W. Fiske, Passaic, N. J., 1, 2 ck; 1, 2 hen. S. S. Underhill, Jr., Jericho, N. Y., 3, 4 hen; 1 pul.

BLACK MINORCAS.—Dr. C. J. Andruss, Canandaigua, N. Y., 1, 5 ck; 3, 4 hen; 1, 3, 4 pul; 2 pen. A. Rudeick, Lockport, N. Y., 2 ck; 5 hen; 3, 5 ck. A. Trethaway, Wilkesbarre, Pa., 3 ck; 2 hen; 2 pul; 1 pen. J. H. Doane, Gouverneur, N. Y., 4 ck; 3 pen. J. W. Garleck, Rome, N. Y., 1 ck. W. H. Malcolm, 5 pul. Lebanon Poultry Yards, 4 pen. J. H. Santee, Hornellsville, N. Y., 5 pen.

R. C. BLACK MINORCAS.—Geo. H. Northrup, Raceville, N. Y., 1, 2, 5 ck; 2, 3, 5 hen; 2 ck; 2, 3 pul; 1 pen. James Holley, New Britain, Ct., 3 ck; 4 hen; 1 ck; 1 pul; 2 pen. Ralph Stoddard, Rutland, Vt., 4 ck. H. W. Bohu, Reading, Pa., 1 hen.

WHITE MINORCAS.—C. W. Jerome & Co., Fabius, N. Y., 1, 2 hen; 1 ck; 1, 2 pul; 1 pen.

R. C. WHITE MINORCAS.—All to J. M. Maxwell.

GOLDEN POLISH.—All to Jas. E. Caunce.

W. C. B. POLISH.—All to B. F. Bryant.

BUFF LACED POLISH.—Bryant, 1 ck; 2 hen. Caunce, 2 ck; 1 hen.

B. W. POLISH.—All to Caunce.

G. S. HAMBURGS.—All to Oke.

S. S. HAMBURGS.—Oke, 1 ck; 1 hen; 1 ck; 2 pul. R. T. Paine, Jr., Boston, Mass., 2 ck; 4 hen; 4 ck; 1 pul. Mrs. R. P. Keasbey, New York City, 3 ck. M. B. Megargee, Modena, Pa., 4 ck; 5 hen; 2, 5 ck. James Mayo, Pittston, Pa., 2 hen. Minich & Son, 3 hen. Geo. Van Derveer, Amsterdam, N. Y., 2 ck; 5 pul. Francis Low, Bloomfield, N. J., 3 ck.

G. P. HAMBURGS.—Oke, 1 ck; 1 hen; 1 ck; 1 pul. Minich & Son, 2 ck; 2 hen; 4 ck. Topping, 3 hen; 3 ck; 4 pul. M. R. Jacobus, Ridgefield, N. J., 4, 5 hen. Megargee, 2, 5 ck; 2, 3 pul.

S. P. HAMBURGS.—Oke, 1 ck; 2 hen; 1 ck; 1 pul. Minich & Son, 2 ck; 1 hen. Jacobus, 3 hen.

BLACK HAMBURGS.—Oke, 1 ck; 1 hen; 1 ck; 1 pul. Jacobus, 2 hen; 3 pul. Jas. McKirdy, Pittsburg, Pa., 2 ck; 2 pul.

S. G. DORKINGS.—Geo. B. Inches, No. Grafton, Mass., 1 ck; 1 hen; 2 ck; 3 pul. Henry Hales, Ridgewood, N. J., 2 ck; 4 hen. Watson Westfall, Sayre, Pa., 2, 3 hen; 1 ck; 1, 2 pul.

COLOR DORKINGS.—H. M. Lamon & Co., Watertown, N. Y., 1 ck; 1 pul. Hales, 3 ck; 4 pul.

HOUDANS.—Forsyth, 1 ck; 1 hen; 1 ck; 1 pul. Jos. B. Thomas, Jr., Norwalk, Ct., 2 ck; 2 hen; 2 ck. Nestledown Poultry Yards, Hollis, L. I., N. Y., 3 ck; 3, 4 pul. Geo. W. Dains, East Litchfield, Ct., 2 pul.

LA FLECHE.—A. E. Blunck, Johnstown, N. Y., 1 male; 2 female. Oke, 2 male; 1 female.

B. B. R. GAMES.—W. P. Butler, Syracuse, N. Y., 1, 4 ck; 5 hen. W. Barber, London, Ont., 2, 5 ck; 1 hen; 3 pul. John Glasgow, Mahwah, N. J., 3 ck; 4 ck. Pierce Bros., 2 hen; 5 ck; 2 pul. Warfield, 3 hen; 5 pul. Fremont Chapin, Oneida, N. Y., 1, 2, 3 ck; 1 pul.

B. R. GAMES.—Pierce Bros., 1 ck; 2 ck; 1 pul. Blunck, 1 hen; 1 ck.

S. D. GAMES.—Pierce Bros., 1 ck; 1 hen; 2 pul. Blunck, 2 hen. Barber, 1 ck; 3 pul. Warfield, 1 pul.

G. D. GAMES.—Barber, 1, 2 ck; 1 ck. Pierce Bros., 1 hen. Blunck, 2 hen. Kienzie, & Bro., 1 pul.

RED PYLE GAMES.—Barber, 1, 2 ck; 3 hen; 1 ck. Glasgow, 1 hen; 4 ck; 2, 3 pul. Pierce Bros., 2 hen; 2 ck. Warfield, 3 ck; 1 pul.

BIRCHEN GAMES.—All to Pierce Bros.

A. O. V. GAMES.—Kienzie & Bro., 2 ck; 2, 3 hen; 2 ck; 3 pul. Warfield, 3 ck; 4 pul.

INDIAN GAMES.—E. B. Underhill, Poughkeepsie, N. Y., 1, 5 ck. E. M. & W. Ferguson, 2 ck; 3 hen; 3 ck; 2 pul. Dr. Edward Moore, Albany, N. Y., 3, 4 ck. Henry A. Kirby, Providence, R. I., 1 hen; 1 pul. Dr. J. S. Wolfe, Bloomfield, N. J., 2 hen. Rudenick, 4 hen; 5 ck; 3 pul; 1 pen. L. B. Richardson, Chicago, Ill., 5 hen. H. M. Carpenter, Sing Sing, N. Y., 2 ck; 5 pul. Geo. W. Kinzer, New Holland, Pa., 1 ck; 2 pen. Warfield, 4 ck.

WHITE INDIAN GAMES.—E. M. & W. Ferguson, 1, 4 male; 1, 4 female. Stanbrough, 2 male. D. Lincoln Orr, Orr's Mills, N. Y., 3 male; 2 female. Moore, 5 male. H. J. Rosenberg, Eastport, L. I., N. Y., 3 female.

SUMATRAS.—All to Wood & Figgins, Washington, D. C.

FRIZZLES.—All to Billard.

A. O. VARIETY.—Oke, 1 ck; 1 hen; 1 pul. Dains, 3 ck; 4 ck; 3 pul. Topping, 2 hen; 2 ck. A. R. Young, Elizabeth, N. J., 3 hen; 1 ck. D. P. Shove, Fall River, Mass., 3 ck; 2 pul. Geo. C. Chase, Uxbridge, Mass., 4 pul.

GUINEAS.—All to T. Treadwell, East Williston, N. Y.

PEKIN DUCKS.—A. J. Hallock, Speonk, L. I., N. Y., 1, 2 old drake; 1, 3, 5 old duck; 1, 4 young drake; 1, 4 young duck; 1, 2 pen. Chas. F. Newman, Huguenot, S. I., N. Y., 3, 5 old drake; 2, 4 old duck; 3, 5 young drake; 3, 5 young duck; 3 pen. Woods, 4 old drake; 4 pen. Lebanon Poultry Yards, 2 young drake; 2 young duck.

ROUEN DUCKS.—Treadwell, 1 drake; 2 duck. Lebanon Poultry Yards, 2 drake; 4 duck; 1 pen. John Brett, Closter, N. J., 3 drake; 1, 3, duck.

CAYUGA DUCKS.—C. W. King, Romulus, N. Y., 1 drake; 1 duck. G. D. Tilley, Darien, Ct., 2 drake; 3 duck. Treadwell, 3 drake; 2 duck. Lebanon Poultry Yards, 1 pen.

INDIAN RUNNER DUCKS.—All to Hallock.

MUSCOVY DUCKS.—H. M. Carpenter, Sing Sing, N. Y., 1 drake; 2 duck. S. S. Underhill, Jr., 2 drake; 1 duck.

BRONZE TURKEYS.—E. M. & W. Ferguson, 1, 4 ck; 2, 4 hen; 3, 5 pul. J. C. Haynes, Annandale, N. J., 2 ck; 5 hen; 4 ck. Geo. Wolf, Seueca Falls, N. Y., 3 ck; 1 hen; 1, 2, 3 ck; 1 pul. Rosenberg, 5 ck; 3 hen; 4 pul; 1 pen.

WHITE TURKEYS.—All to D. A. Mount, Jamesburg, N. J.

A. O. V. TURKEYS.—Rosenberg, 1, 2 ck; 1, 3 hen. Malcolm, 3 ck.

TOULOUSE GEESE.—H. F. Van Zandt, New York City, 1 gander; 2, 5 goose. Lebanon Poultry Yards, 2 gander. James Seeley, Geneva, N. Y., 3 gander. Treadwell, 4 gander. Newmau, 5 gander; 1, 3 goose. King, 4 goose.

EMBDEN GEESE.—Pollard's Poultry Farm, 1, 2, 3 gander; 1, 2, 3 goose. Treadwell, 4 gander; 4 goose.

CHINESE GEESE.—King, 2 gander; 3 goose. Treadwell, 1 goose.

A. O. V. GEESE.—Tilly, 1, 5 gander. Treadwell, 2, 4 gander; 3, 4 goose.

Color of the Egg Shells.

An egg handler informs me that the demand here is changing, and that there isn't the call for white shelled eggs that there was. He says, further, that it is a good thing, especially for cold storage eggs, because a brown shell affords better protection than a white one. He says it is a fact that if two lots of eggs exactly alike in every way, except that one has white shells and the other brown, be put into cold storage for several weeks, the latter will come out in much better shape, and with less change of given flavor than the former. The explanation is that the brown shells are heavier and thicker, therefore afford better protection. If this be true, our Boston friends who have demanded brown shells on their eggs, have been nearer right than the New Yorkers, who have paid higher prices for eggs with white shells, preferably Leghorns. If all this be true, what about our favorite egg machines? What have our poultry friend to say about this change of preference? It isn't likely that everybody will change, and there will always be found people who prefer white eggs, others who prefer brown, and probably others who prefer other shades of color. — *Rural New Yorker*.

On many small farms, large meat bones, soup bones, and the like, are found on the backs of the kitchen stoves, where they are allowed to dry out and char, perhaps. This makes them easy to break up fine for the chickens, and fowl will eat them readily; but it should be known that the heating process loses the bone its most valuable constituent, the nitrogenous compounds. Better save up and try and get a green bone cutter. There is no proper substitute. — *Maine Farmer*.

Thirty Thousand Ducks.

The hatching, raising, and marketing of thirty thousand ducks in one season, seems almost incredible, and yet those of our readers who know something of the operations of the Messrs. Weber Bros., will not read the above heading with surprise. Truly it is an enormous number of ducks to handle on one farm, and yet the growth of that duck farm, from its modest beginning with ten or a dozen ducks and one incubator, to its present great proportions, has been simply natural—just as other great businesses grow.

We have told F.-P. readers before now the interesting story of this great duck farm, of how the father and mother brought their young family to this country from Germany about thirty years ago; of how the father worked as a gardener, taking care of gentlemen's estates in one of Boston's suburbs, until he yielded to the longing for farm life and a home in the country, and bought a farm in Wrentham, engaging in truck farming and milk producing. Several years passed without their being able to get ahead any—diligent and hard work simply making both ends meet, and there was a debt of three thousand dollars on the farm when the elder Weber became interested in duck raising, and made the acquaintance of Mr. Rankin. A six hundred-egg Monarch incubator and ten or a dozen ducks were bought, and that was the seed from which this great business has grown.

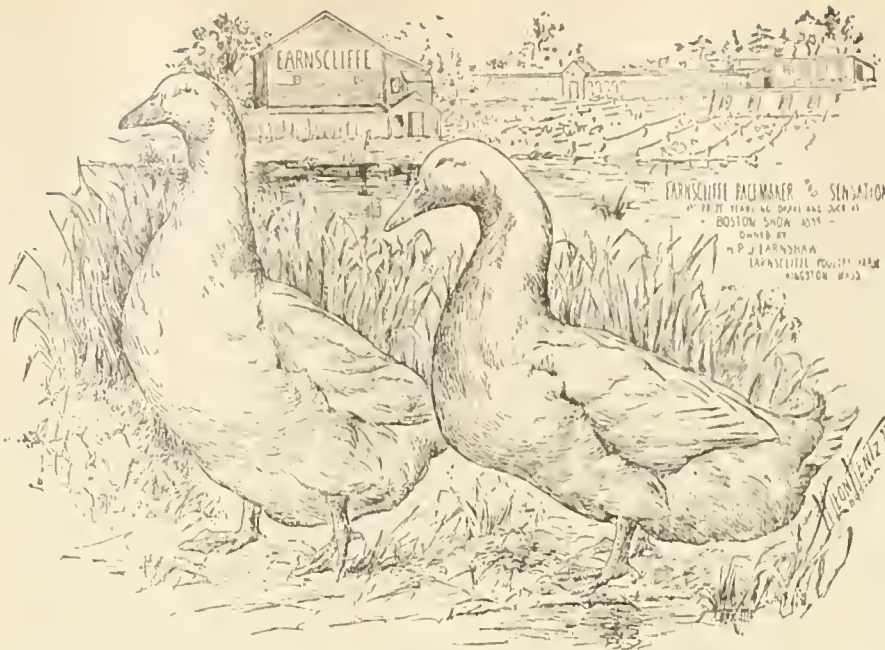
We visited the Weber farm the last of January, enjoyed again the kindly hospitality of the brothers and the good mother, and talked over with them the success of the past year and the outlook for the future. It may not be out of place to state here that the Messrs. Weber see nothing discouraging in the low prices for ducks of the past season. They can see a profit in ducks, even when sold at eleven and one-half cents a pound, which was the minimum price last season, and they were already beginning this season's work at the time of our visit; indeed, two hatches were already off, and the ducklings enjoying brooder house life, and a third hatch was just completed that day.

It is very well known that duck eggs are low in fertility when ducks first begin to lay, and we felt some surprise that they had been able to get fifty-four fertile eggs out of the one hundred and fifty put in this last machine, and from these fifty-four fertile eggs forty-six ducklings had been hatched. The first two lots had resulted in eleven and seventeen ducklings hatched, respectively, and this third hatch had given forty-six.

At that time they had nine machines running, two or three of the latest ones being filled to their full capacity of about four hundred and fifty eggs, and before these lines are read all of their machines will be in full operation; their present incubator capacity being sixteen 600-egg Monarchs, and five 360-egg Cyphers, with a total capacity of about nine thousand eggs at one time. They run their incubators from January to July, getting six to seven hatches from each machine in a season; one machine last year making a record of 1750 ducklings hatched; the average for the sixteen large machines being 1325 ducks each. They had twelve hatches come off in the month of May, which averaged 325 ducks each; the highest hatch of one machine being 375. Certainly a great hatching record, which speaks volumes for the skillful handling of the incubators by the brother who attends to that branch, and likewise bears strong testimony to the healthfulness of the stock and fertility of the eggs.

A machine had just been tested on the day of our visit, and nearly a bushel of unfertile eggs had been taken out, which led us to inquire as to the ultimate fate of those clear eggs. "We send those to Boston markets," replied Mr. W. "They are bought by the Italians, mostly, we understand." Further inquiry elicited the fact that there was quite a good market for duck eggs in the cities, and especially about Easter time, when they brought quite a satisfactory price, about thirty cents a dozen.

Such a great duck plant as that of the Webers is not built in a day; it is a systematic growth, rather, and two or three new buildings have been added to the plant since our last previous visit, about a year ago. One of these new buildings is a brooder house



FIRST PREMIUM PEKIN DUCK AND DRAKE, AT BOSTON SHOW.

Exhibited by H. P. J. Earnshaw, Kingston, Mass.

30 x 150 feet, which has hot water pipe brooders upon the south side, with thirty-six pens 4 x 10 feet inside, with a capacity of 3,600 youngsters at one time. Next this line of brooders is a walk four feet wide; then another row of pens 8 x 12 feet, without any heat; these are for somewhat older ducklings, that do not need artificial heat. This house was blown down in a great thunder storm last July, and there were about five thousand ducklings in it at the time. Singularly enough, only four of this great number were killed. Another house, perhaps 150 feet away, likewise full of ducks, was blown down in the same storm, and not one of the ducks killed. We venture to say that such immunity from loss would not occur again in many times trying.

Another new duck house, 150 x 16 feet, contains six hundred fine year old ducks, in addition to which they have two brooder houses 130 x 16 feet; four "cold" houses, two of which are 160 x 16 feet, one 80 x 16 feet, one 60 x 12 feet; and six breeding houses, one 20 x 18 feet, two cook houses, and a large grain house some 30 x 18 feet in size, in which can be stored eight carloads of grain.

The breeding stock is kept about thirty-five in pens 20 x 15 feet in size, there being seven or eight drakes in the number; or about one drake to each five ducks. The pens are bedded with new hay twice a week, the bedding being removed twice each season.

Of course in such a business as here described, the ducklings are in all stages of growth, from just hatched to going to market at about ten or eleven weeks old. That is, from the time the earliest hatched are killed and sent to market, there is a steady procession of eggs into the incubators, ducklings out of the incubators and into the brooders; those just hatched pushing up those of the day before from the warmest place next the heater; and a stream of ducklings moving out from the other end of the brooder house into the "cold" house; thence, after a couple of weeks, perhaps, into pens outside, and at ten or eleven weeks old moving up to the picking house, where they are killed, picked, packed, and shipped to market. During May and June last year, or in the height of the season, there were about twelve thousand ducks in this long procession, all between hatching and eleven weeks old, and of these about 320 a day were being shipped to market—the shipments in the height of the season being about four tons per week. Most of their shipments are to New York commission dealers, only a few of their ducks going into Boston markets.

It takes fifteen men to do the work of this great plant in the height of the season, six or seven of them being engaged in killing and dressing. The feathers alone from such a plant bring a considerable income, they having sold this past season about two tons of feathers, amounting to between fourteen and fifteen hundred dollars. Mr. Weber told us that they shipped the last lot to a new dealer this winter, who offered them four cents a pound more than they had received for them from the dealer to whom they had formerly shipped them—that four cents a pound making a difference of about twenty-

five dollars in the feather receipts for that shipment. The magnitude of such a business is indicated by the fact that it requires thirty to forty tons of beef scraps in a season, and other food in proportion.

One of the houses which we visited contained several hundred fine year old ducks, and while inspecting them we gleaned the information that they were considered better for raising breeding stock from than young ducks, because the eggs were larger, and the ducklings hatched from the eggs were generally larger and stronger. This is counterbalanced on the profit side, however, by the fact that the year old ducks do not lay so early by some weeks as the young ones, and do not lay so many eggs in a season; and as it is the early ducklings that catch the great prices, probably the young ducks are the most profitable to keep; this we translate into hen lore as follows:—pullets for eggs for a profitable market, and year old hens for breeders.

There is much pleasure in visiting a great duck plant like that of the Messrs. Weber, and studying their methods. The growth of their business to its present enormous proportions has been steady and continuous. They did not dream when they bought that first incubator and small flock of ducks, that in ten years time they would be running the largest duck farm in the world, and rearing and marketing thirty thousand ducks in a season; and yet this great business has been built up by push and energy, directed by intelligence and common sense. It is no "miracle." It is the simple result of common sense methods applied to an opportunity, and the moral is "write large" for all of us to read.

The Light Brahma is an excellent fowl to breed where one is wanted which will not forage all over the place, scratch everything inside out, and manufacture holes in fences. It never flies, and a low fence will keep it within definite bounds. In feeding the large Asiatic strains, particular care must be given to cast their feed among plenty of straw or litter, in order to make them exercise in finding it. In confinement of any kind, their tendency is to be too sluggish.—*Maine Farmer*.

MARKET REVIEW.

Eggs.—Eggs have made a sharp decline during the past week, though trade is active and receipts are not allowed to accumulate. Western fresh eggs are selling at 18@20c.; Michigan and Indiana, 20@21c.; eastern fresh, 20@21c.; nearby, 24@26c.; jobbing prices, 1@2c. more. The cold storage stock is reduced to 4,056 cases, and is selling at 15@17c.

Poultry.—A good demand for poultry is noted, with more trade than at any time since Christmas. Prices are well sustained, with the best lots firm. Western turkeys are quoted at 10@13½c.; northern are higher at 12@17c. Western chickens are unchanged at 10@12c.; northern, 12@16c.; western fowls, 10@11c.; northern are higher at 9@15c. Ducks are unchanged at 9@12c. Geese, 10@13c.

Grit.

Every one knows that grit is needed in any business, but there is no occupation where a greater amount and variety of grit is necessary than in the chicken business. When sitting hens leave their eggs until they are chilled beyond all hope, a great amount of grit is needed to reset those hens on fresh eggs. When "varmints" get into the flock and carry off and kill a few dozen, grit and a sharp steel trap are both needed. When our poultry is well fitted for market, and the price goes down, down, until it is so low you need a microscope to see the figures, grit is what is wanted to persist in feeding and hanging on until the market comes to its senses. Grit and staying qualities are needed badly in the poultry business; all know who have tried their hand for a few years in succession; but it is of another kind of grit I intended writing about—grit for the chicks' use, their "teeth." A pile of gravel and sharp sand is needed in the poultry run, but something else is necessary, if we would have our chicks do their best. Gravel is comparatively smooth, and a few hundred chicks will soon pick it over, anyway. All the grit on the market I have seen was good, and filled the bill, but it is somewhat expensive, and there is scarcely a house but what can furnish an abundance of grit material almost if not quite as good as market grit, and at no cost, save a little time. I mean dishes and crockeryware. We use, and have for years, a piece of railroad iron and a hammer with which we break the pieces of dish and jar into suitable size for hens and chicks. Chinaware is the best, but well glazed crocks, jars, and jugs, furnish excellent material; we also use thick glass, and although the practice is not recommended, we have had no bad results. Would not use thin glass, I believe. The amount of such material that a hundred hens and several hundred chicks will consume, even when they have a gravel pile to run to, is almost beyond belief. If one has not any children to help along with the grit making, a mortar would be almost indispensable with a very large flock.

Besides being such a great help to the poultry, it does away with the broken dishes round the premises. If you run out of material, almost any village can supply you with a large amount, and are glad to get rid of it. Whenever you see dishes dumped in ditches, and are prepared to take them, get out and gather them. They will, when made into the right size, return to you in the shape of eggs and quick growth in the chicks.

The egg yield is increased almost at once. Indeed, when the "grit" runs out the eggs are scarce for a day or two, sure; and if the supply of grit is not replenished, the eggs get scarcer and scarcer; then when you begin to hammer, how the hens will run and pick; then the eggs will begin to increase. Chicks grow much faster, and are healthier, of course, as they can digest their food if supplied with "teeth."—*Maine Farmer*.

Jacobs is Learning.

"TO PREVENT SITTING.—To prevent the hens from sitting, place a porcelain egg in the nest of each sitter, and allow no food but once in two days, the food to consist of an ounce of lean meat. Let the hens stay on the nest two weeks, and then place each hen in a coop, with open lath bottom raised a foot off the ground, and in two or three days there will be no inclination to sit. If allowed to stay on the nest two weeks they will be reduced in flesh, and when they begin to lay will keep at it, as the resting for two weeks will be beneficial."—P. H. JACOBS, in *Farm and Fireside*, May 1, 1896.

Now read Mr. Jacobs' comments from the *Poultry Keeper* January 15, 1899: "Do not allow a lot of hens that persist in sitting after it is too late in the season to occupy the nests in the chicken houses. They will succeed in hatching a brood of vermin, no matter how clean the premises. A *Few Hens* says: 'When a hen sits it is her vacation'—better make them spend the time in a shady back yard, where there are no nests to get into, and let a cockerel keep company with them."

Nearly three years finding it out—but he's headed the right way now.

The laying fowl require twice as much food as the non-layers, provided it is properly selected so as to avoid fattening. A vigorous eater is most likely to fill the egg basket.—*Maine Farmer*.

An Absurd Rule.—Utilitarian Show Birds.

Written for FARM-POULTRY.

If one will visit a few of the poultry shows he will quickly become convinced that the quicker the revision committee of the American Standard of Excellence get together and eliminate the clause which disqualifies certain breeds for the possession of an off colored feather or a feather the least particle off in color, the better it will be for all concerned. So far I have not heard a single exhibitor attempt to defend the clause referred to; in fact, the majority of the exhibitors condemn it in outspoken terms.

What would be the feeling among the breeders of Jersey cattle should the Jersey cattle club adopt a rule disqualifying for exhibition purposes such specimens as happened to have a color marking of some certain kind or nature which to a few might seem objectionable? There is, of course, no danger of any such rule being passed, for all rules regarding the registration or exhibition of Jerseys are made by breeders of Jerseys. No revision committee made up of breeders of Holsteins, Shorthorns, Herefords, Devons, etc., can get together and pass any rules which touch upon the registration and exhibition of Jerseys.

Here is the source of trouble which characterizes the American Standard, and which always will characterize it as long as the standard qualifications of a breed are allowed to be formulated by men who have never bred that particular breed or variety.

I am a firm believer in the policy of allowing the specialty clubs to determine what shall be the true standard qualifications of the respective breeds which they represent, and when that policy is adopted the dissatisfaction which is now so noticeable among the breeders, will disappear.

Nearly every breed and variety now has its specialty club, and it is reasonable to suppose that the members of any one of those clubs know what kind of a fowl they wish to breed far better than do men who have never bred the variety represented.

The color disqualification clause has caused more dishonest practice among exhibitors than all other causes put together. At a recent show I heard two exhibitors talking. One was an exhibitor of one of the black varieties, and although it was admitted that his birds were far and away the finest ones in their class, they were disqualified because of a little gray on the tips of the wing feathers. This gentleman was telling the other why his birds failed to win, and the other interrupted him, saying: "Let me tell you something: When you show those birds again just pull out those feathers." "But," said the other, "that would not be right." "Never you mind," said the first speaker, "that is just what was done to those birds that beat you, I know, for their owner told me so."

There is the summing up of the whole matter. The best birds were beaten by inferior ones, which, had their owner played fair, would have possessed the same disqualifying features which caused the good ones to be barred from competition. When this troublesome clause causes really meritorious fowls to be disqualified, and inferior ones to be placed among the winners, simply by the exercise of a little judicious feather pulling, it is time that the breeders should demand and secure the repeal of it.

Another thing that one learns at the shows is that at least seven out of ten exhibitors are in favor of score card judging. Comparison judging may be, and probably is, just as fair to the exhibitor, but it does not give to him any reasons showing why his birds won or lost, as the case may be.

Some of the more expert breeders may not care for these reasons, but the average breeder will learn a great deal from his score cards after the show. They show in what respect the judge thought his bird superior or inferior to the others in the class, and from the knowledge so gained he will endeavor to improve his birds when he mates his pens for the following season. Right here it is proper to say that if a man shapes his course rightly, and declines to be thrown off it in the enthusiasm of a show victory, he may successfully combine the qualities which contribute to bring a high score with those which make fowls valuable for utilitarian

purposes. How many exhibitors care nothing for utilitarian qualities, but so much the worse for them. A pullet that begins laying early in the winter, and that gets a score of 96 points, (as did one of the writer's this winter) is worth a great deal more for breeding purposes to me, than one that scores equally high, but that shows no disposition to lay until towards spring.

An early laying, high scoring pullet used for breeding purposes will, according to the known natural laws, produce pullets which will possess the same traits. "Selection is the corner stone of the breeder's art," is an expression which Darwin made when writing on heredity; and it is just as easy to select utilitarian show birds for breeding purposes as those possessing show qualifications only, although at times the breeder will have to overcome the temptation to breed from a high scoring bird that does not possess the other desired qualities.

Not all of the young birds raised will be valuable for utilitarian purposes, no more than will all be suitable for show purposes, for reversion and variation will upset the most careful breeder's plans. By breeding only from those which combine the qualities desired in the highest degree possible, however, the ratio of desirable specimens will increase, and in time a strain of utilitarian show birds will reward the breeders' efforts.

Buffalo, N. Y. HENRY L. ALLEN.

From Farm to Market.

Last winter I received quite a number of letters from farmers stating that they were not getting any eggs, and wanting to know what was the reason. As spring opened up a large number wrote me asking if my fowls were a "laying strain." They wanted a variety of fowls that would lay in winter. They had tried this, that and the other variety, and all mixed, and they still failed to get eggs when they were worth money. Most of them had heard or read that there were "laying strains" of several different varieties, and they thought that if they could only procure a start of such a strain they would get some winter layers.

When I informed them that my hens laid the year around, and that almost any variety would do the same thing if properly fed and cared for, many of them seemed incredulous, and several orders intended for me went elsewhere.

A poultryman living near me declared emphatically that a "laying strain" of hens would lay three to six times as many eggs as a non-laying strain, no matter how they were fed. I asked him if his Jersey cow would yield a large quantity of milk, rich in butter fats, when fed on straw alone. He said: "No; but a hen is different from a cow." I asked him in what respect the manufacture of eggs differed from the manufacture of butter fat, and he admitted that he did not know. I asked him what he fed a Jersey cow to make her yield a large quantity of butter fat. He said: "Good clover hay, bran, corn meal and mangel wurzels." I then asked him what he fed his hens to make them lay. He said he fed them some corn, and they picked up considerable stuff about the yards. He is just like hundreds of others. He knew how to feed a cow to obtain a maximum yield of butter fat, how to feed a pig to fatten it quickly, and how to feed a horse to keep up its condition while at hard work, but he supposed that hens could get egg material from almost anything.

I showed a poultry breeder a pen of twenty-one hens, and told him that every one of them were laying, yet if I so desired I could stop them in a week, simply by cutting down their supply of food. It was then the middle of June. The first of July, when the egg season was over, I cut down their supply of food over half, and exactly eight days later they ceased laying. I fed them very lightly all through the hot weather of July, August, and most of September, and during that time they laid but two eggs. They moulted nicely, and not one died. The latter part of September I began feeding again, and in two weeks nearly all were laying, and they will lay all winter. When they were resting eggs were worth six cents per dozen. Next month they will, I think, be worth fifteen cents, and I will have eggs to sell.

A facetious friend of mine says: "Hens won't lay twice—once when they are not fed enough, and once when they are fed too much." He is correct. My hens laid all last winter and up to the time I stopped them in July, on the following bill of fare: Oats, corn, dry bran, potato parings and scraps from the table, limestone grit, oyster shells, skim milk and water all winter; and clover, chickweed and grass added in spring and summer. There were thirty-four hens and one cock in the pen, and when I began incubating the eggs, early in March, ninety-one per cent proved fertile.

In feeding the above materials I kept oats and bran, water, grit and shells before them all the time; corn on the ear once a day, two quarts of skim milk a day, and in spring grass, chickweed and clover once a day. One must exercise judgment in feeding the corn. If too much is given the birds become too fat; if too little, egg production is checked.

It will be seen that I feed no warm or cold mash, nor cut bone, and the only meat they received was the few scraps in the table waste, and about once in two weeks a rabbit. I have fed both meat and cut bone at different times, giving one-half ounce per hen each day for two weeks at a time; but its cost largely exceeded all apparent value received. I am not advising against the use of cut bone; but for one thing, I haven't time to prepare it, and another, my hens do as well without as with it.

Here in the west we cannot afford to pay out good money for fancy implements, or patent foods, or condiments; nor can we afford to monkey our time away on fancy soups and warm mash. Eight to fifteen cents a dozen for eggs won't pay the bill and leave us anything. What we want is to get the largest quantity of eggs from such food as we grow, or can buy cheaply; and if we supply our hens with the right sort of a variety of the cheap feeds, we can get the eggs—that is, if we supplement this food with sensible care. Fowls love corn when the weather is cold, and if it is accessible they will eat too much of it. For this reason we must pen them if we want eggs. It seems almost like foolishness to pen fowls on the farm, but we must do it to get eggs in winter. A roll of 48-inch netting will make a pen large enough for twenty-five hens, and if well cared for twenty-five hens will lay a good many eggs.

In closing let me say that I have found that sharp grit is as necessary for laying hens as water. I use a limestone grit, and it has proved to be as good as any. Water and grit are as essential as food; and corn and good judgment are necessary in feeding for good results.—FRED GRUNDY, in *American Poultry Journal*.

Where Meat Should Be Placed.

To give satisfaction, the bones must be small, and the meat thick, and the meat must be properly disposed upon the fowl. The majority of poultry eaters like the white meat better than the dark; and the fowl that best suits the majority of purchasers has a large amount of breast meat. The best market fowls have this white meat not only on the breast, but also well back between the legs. Much of the market poultry fails to be thick meat at these points, and this is a vital defect. The pure bred Wyandottes and Plymouth Rocks are specially noted for carrying a generous quantity of white meat, not only upon their breast, but also well back between the legs, and this is one of the reasons for the market popularity of these two breeds. Select as breeders, therefore, fowls whose legs stand well apart, with the body between of good width, with a tendency to put on flesh there.—*Poultry Item*.

Much of the profit which might be derived from small flocks of hens is lost by keeping the old hens and pullets together in the fall. It seems like too much work for a small object to separate them when they only amount to a decent flock altogether, but if the hens are fed as the pullets should be, they will get too fat, and if they are all fed as the old hens should be, the pullets will not develop in season to lay early. If you keep but few hens, and have not room for two pens and yards, it is better to raise a supply of pullets and dispose of the old hens early in the fall.—*Maine Farmer*.

How is the Farmer to Know Who to Buy Stock From?

To the fancier this is not a very perplexing question, for he is well posted on the different varieties of fowls, and keeps well read up in poultry literature till he knows all the prominent breeders of his varieties, and when he wants to buy stock he goes or writes to the breeder who breeds after his own fancy; if he writes, he writes to the breeder whose stock he knows will make the best cross on his own stock. He wants stock bred on the same line as his own. He is posted on the fine points of a fowl, and if his stock is a little off in color or under weight, or off in comb, he asks for stock that is especially strong in these points; or if the seller tells him he has a good bird scored by a judge, and it scored 90 points, but being young it was not up to weight, and was cut two points on weight, and its comb had been frosted and cut one for comb, leaving the bird a 93 point bird as a breeder, that is, supposing it comes up to weight. Now the buyer knows the judge and seller, and has been acquainted with his strain of poultry for years, so he can tell just what he has had offered to him.

Not so with the farmer; there are few who understand the value of a score card, or do not know but what one score card that calls for 90 points is just as good as another that calls for 90 points. He is not as well posted on poultry as the fancier. He must be posted on horses, hogs, cattle, sheep, fruits, grains, grasses, fertilizers, and farm machinery, so you can see he cannot be as well up in fine points as the fancier, nor can he follow up the different breeders, different breeds and strains. Now for him to buy breeding stock, and buy it intelligently, is a very difficult task. Then he has been imposed upon and cheated so often by breeders who have taken advantage of his not keeping up with the times, that he has set down every breeder who advertises stock as a fraud and cheat.

Now there are a few things pertaining to the fancy that farmers had better let alone and leave for the fancier to settle; he has no time to bother with the double mating process to get exact color of plumage, barring, etc. He need not care whether the poultry for breeding is sold by score card or not. He must learn what breed of hens will lay the most eggs in a year, and what breed will sell best in his market. He must have both of these qualities combined in one breed, also what kind of food they will have to have to give best results. When he wants to buy stock he must send to a good reliable breeder who advertises in a reliable paper—but how is he to tell the reliable breeder and paper? Well, that is a little difficult, but you should take one or more poultry journals and read and study it all your time will allow, and after one or two years you will get pretty well acquainted with it as well as its advertisers. When you want stock write to the one who carries his ad. from year to year. Remember he has been tried and is all right or his ad. would have been dropped. There are many ads. dropped from papers because they did not fulfil their advertisement to customers, and no reliable paper will carry ads. after good proof of their dishonesty.—*Inter-State Poultryman*.

One of the most important duties on the part of the poultryman is that of thinning out the flocks. As long as some of the hens are laying there is an inclination to wait for others to begin, and time passes by, every day being one of expectancy, but the hens do not lay. Weeks of labor and feeding result all in the hope that the unprofitable hens will soon begin to lay, but not until spring opens, and the weather becomes warm, do the hens give a full quota of eggs. Get rid of the idle hens, and keep only those that are giving a profit. It is better to be the owner of a flock of only a dozen hens that are doing service in egg production than to have twice that number in idle hens.—*Farmers' Magazine*.

Hens are early risers, and should be fed as soon as they come off the roost. A good plan is to have a trash pile with a few handfuls of wheat or shorts scattered over it for the hens to scratch for. Start a hen at her work early in the morning, keep her at it, and she will invariably lay before night.—*Farmers' Magazine*.

The Layers and the Show Birds.

They Must be Treated Differently.

The longer I breed poultry the more I am convinced that fowls bred for egg production solely, and those bred for show purposes, must be kept separately and treated differently. I have followed this plan for a few years, and with success in both branches. First class layers must be bred exclusively for the purpose, and once the strain of layers is established it must be continually improved by judicious and scientific mating.

Let us begin with the laying strain. It matters little what breed it may be. Some breeders are expert with one breed, some with another. Leghorns, for example, which are natural layers, do well in some hands, and poorly in others. Brahmas, which always have been considered better table fowls than layers, in the hands of men who understand them are today made to lay a remarkable number of eggs; and so it goes, each one to his choice. The principle, however, is the same. Early layers will produce early layers, and vice versa. In order to establish a prolific laying strain, the early laying pullets must be noted, marked or penned in such a way that they can be recognized again when wanted for breeding purposes.

The pullet that will lay first and longest is an ideal breeder from which to establish the prolific laying strain. In order to produce vigor and health in the chicks, strong healthy males should be selected. After the pullets have raised their season's complement of chickens, it must be remembered that the males, as well as the females, come from a laying strain: therefore it becomes necessary that the laying quality be preserved both in female and male.

Of course, in order to reproduce successfully and satisfactorily, thoroughbreds must be used, and they must be kept pure. Crosses can never fill the bill under any circumstances; but thoroughbreds though they may be, they need not be the thoroughbreds of the exhibition hall. It matters not whether the shape, comb or tail that wins be there or not, so long as the egg production can be depended on.

Layers need special care. What we require of our layers are early eggs. A pullet that will not lay before December, and a hen not before January, are poor investments when considered as layers. They are consuming feed, and are themselves non-productive when the prices of eggs are the highest. In other words, they are costing us more than they are worth, and since we are depending entirely on their earning quality, they are found wanting. In order to have early layers we must hatch early. The time depends upon the breed. In Leghorns, to make October laying pullets, hatch so that the chicks are all in the brooders by April 1st; this will give us six months in which to bring them to maturity. In Plymouth Rocks hatch one month earlier; in Brahmas, Langshans or Cochius, hatch in January if you can.

From the very start the chicks must be kept growing. A setback of one day often means a lack of growth for a week. Even when pullets lay in October, they are quite uncertain, some starting well and continuing regularly, while others are fitful and unreliable. October should be the month to look for eggs, and if the start is made then, the yield will be fairly well established by Nov. 1. So long as a pullet will continue to lay well—and this depends entirely on the ability of the breeder—she is a money maker; if she stops, from one cause or another, unless she is considered a very valuable specimen, and the delay is deemed only temporary, she had better be killed and eaten. It is folly under ordinary circumstances to waste time and care on what may turn out a hopeless case.

Many egg farmers of the present day believe only in pullets for layers: consequently when they begin to moult, they either sell or kill them. I cannot say that I altogether agree with this idea, although it is a business principle, and it would seem folly to feed for three months a layer which cannot earn her cost. I believe in yearling and two year old hens; hence I do not believe in depending entirely on pullets.

Yearling and two year old hens are very valuable. In the first place they must be kept, if a continuous and annual egg yield is desired. They will moult later than pullets,

and thus will fill up the gap before the pullets start. The problem of a continuous egg supply is thus solved, and the hens lay while the pullets moult, and the pullets lay while the hens moult.

Let us now turn our attention to the exhibition strain. According to the date of the particular show which we have selected to make an exhibit, we breed to suit. If it be Boston, Jan. 17, we hatch so that our pullets may be exactly right at this time; if it be New York, Feb. 1, we hatch at the same time or later, and we take pains that our pullets do not lay before the exhibition takes place. We pay no attention to an early egg yield; in fact, we do everything to prevent it. It is not possible, therefore, to produce an early and consequently prolific egg strain from stock hatched for these two exhibitions. The fancier, he who breeds only show birds, may claim that his eggs from such stock bring him in more money than the yield of the egg farmer. I am not arguing on this line, hence will not dispute him. My original proposition was that the two strains must be bred separately, and that egg strain fowls are not show birds, and show birds are not egg strains.

Chickens hatched for early shows, November and December, may be much better layers than those hatched for January and February shows, but they will be poorer show birds, and in fact, if pullets, for the fall shows they would hardly be able to win in mid-winter shows, the laying having developed them into hen shape. — E. O. ROESSLE, in the *Country Gentleman*.

Building Up a Business.

To build up a profitable poultry business it is imperative that strict business principles be employed. The first question of importance is: What are the markets, and what do they call for? No matter what we may think, it is what the people want, that we must consider. We don't believe there is any more virtue in a brown shelled egg than in a white shelled one, but if the public or rather buyers of our market want a brown one, that is the kind we should grow. It is the same with poultry. If our market calls for a yellow skinned fowl it is a mistake for us to grow a white skinned one.

Langshans and Minorcas at one time were our favorite breeds, and we still think a great deal of them, but when our market said give us brown eggs and yellow carcasses, we knew we could not grow either of them with our black stock, and we were compelled to substitute white breeds.

Our idea for a successful poultry business is to combine all the features of the market, like roasting fowls, broilers, ducklings and eggs. We also believe in advertising eggs for hatching, and selling breeding stock. Of course, to do this work properly it is necessary to use none but thoroughbreds. Mongrels should not be tolerated, but we presume they will always be about; but the wise poulterer now sees that thoroughbreds give better returns, and cost no more to keep. Besides, a man keeping only pure varieties, and getting them up to a high point of usefulness, can gradually build up a trade of selling breeding stock and eggs for hatching. It will be quite an item in the income.

Incubators and brooders must be used, and these could be started about October, or as soon thereafter as possible, and run until June. The best birds of the hatches from February on could be retained for sale as breeding stock, and the culls, including the October, November, and December hatches, could be marketed as broilers or roasters. Advertise in the poultry papers, and in the advertisement give your egg records, or any other point that will be of value. Keep a reputation, and it will be surprising how each year your business will grow.

These are merely hints, and come after years of study and practice. It is the plan that the writer follows, and one that is giving him good results. Good business management tells, and the man who is wideawake will make his plant pay, while the reckless neighbor is sighing for some one to come around and buy him out. In this very town poultry culture has received a black eye for the simple reason that so many failed at it, and yet the writer is making a good living on his farm.

Next door to us is a man who is trying "his luck" with Leghorns. He has several hundred, and there are some good ones among the lot, but he does not know how to manage his place. An Italian does the work. He never reasons. The owner very seldom has anything to sell, and during the fall we supplied him with eggs for his family use. There are people in this town who will point to our neighbor's luck and say, "We told you so." They even doubt that we are making expenses, and think we have a private income which keeps the wolf from the door. We mention this circumstance to show you how quickly people will look upon the dark side.

Why should not poultry farming be profitable? Is there an article more in demand than that of eggs? Would not a market house be incomplete without the sale of dressed or live poultry? Why should the production of such a staple article be a failure? There is no reasonable argument to support the theory. The whole fault of unsuccessful poultry farming lies in poor management.

Keep strict records. Note all important events. Keep an account of your expenses, and give the fowls the credit for all receipts. That's a business way of handling the subject. Next year you will readily see the mistakes you made this year, and will be able to improve upon them. Be progressive; push ahead; keep up with the times. Don't let your business push you, push the business. A wise man is always on the alert; he is looking for improvement. In this era of push it will not pay a man to idle away his time. Don't get discouraged. "A faint heart never won fair lady." The doubting Thomases are always poor. Build up your business gradually. Go step by step, and make your foundation firm and sure. Build up a reputation. Let it be a reputation for good goods and honest dealings. Think over all these things. — *Iowa Homestead*.

Protection for Egg Sellers.

There is much feeling amongst Massachusetts poultrymen that it is exceedingly unfair that "cold storage" and imported eggs are sold to unsuspecting buyers as "strictly fresh," "new laid," "home made," etc., and a movement is on foot,—indeed, a petition has been presented to the legislature, asking that eggs be given the same protection under the law that other food products have. This movement, so far as it has taken shape, is quite as much, if not more, in the interest of the consumers as the producers, it being grossly unfair to both that stale (unfresh) eggs be palmed off as fresh laid.

The writer knew of a case recently, in a town not twenty-five miles from Boston, where storekeepers were paying 40c. a dozen for strictly fresh eggs, and selling western eggs (marked "fresh laid"), for 30c. a dozen, and cold storage eggs at 21c. The latter were called "fresh eggs," and the unscrupulous dealer told a customer they were "home made." That was most certainly a fraud, and it is to protect eggs from such fraud that the movement is inaugurated.

As we understand it, a public meeting will be called at an early day, and parties in interest will be invited to "get together" and organize, with a view to having the influence of the poultry interest felt at the state house.

We will probably give notice of this meeting in next number.

Some of the best birds brought to market this year have been well nigh ruined by being killed when the crop was full. No animal should go to the block for eighteen to twenty hours after the last meal is fed. Food soon sours, especially when brought in connection with the juices of the crop and intestines. — *Maine Farmer*.

Crowding live poultry in coops is generally disastrous to the shipper, as the poultry is unable to obtain proper ventilation while in transit, and is apt to arrive sick, and in such poor condition that it will not attract buyers, unless at a sacrifice in price. The whole practice is ruinous to the grower, and not to be encouraged from any standpoint. — *Maine Farmer*.

Scrofula

In its thousands of forms is the most terrible affliction of the human race. Salt rheum, sores, eruptions, boils, all humors, swellings, etc., originate in its foul taint, and are cured by the great and only True Blood Purifier, Hood's Sarsaparilla. The advanced theory of today that tuberculosis, or consumption, is curable by proper nutrition, care and purifying the blood, finds confirmation in the experience of many who have been cured by

Hood's Sarsaparilla

Hood's Pills cure sick headache. 25c.

Choice Cockerels,

\$2, \$3, \$4 and \$5 each.

Also a few Pullets in pairs, trios, etc.

Strong, vigorous cockerels, to improve the laying quality of a farmer's flock, for \$2 each.

Barred Plymouth Rocks,

(Brown Egg Strain; "the business fowl of the 19th century.")

White Wyandottes,

(Brown Egg, Prolific Laying Stock).

A. F. HUNTER,

South Natick, Mass.

I will sell a good breeding

TRIO OF

Langshans,

\$5 I will sell a few choice cockerels at \$2 and \$3 to close. Let me hear from you at once, as stock is limited. J. H. LORD, Lawrence, Mass.

HEILBORN'S

Mammoth Light Brahmas

Win at the various shows throughout the east in the strongest competition. They made a clean sweep at Milton and Fall River. A fine young lot of chicks for sale at reasonable prices.

Address ARNOLD HEILBORN, Box 56, Warwick, R. I.

"210 EGG STRAIN"

White Wyandottes.

Bred for utility. Pullets of this strain mature when five months old, are of standard weight, and have averaged 210 brown eggs per year.

Eggs for hatching, \$2 per sitting; 3 sittings \$5. F. E. WOODS, Mansfield, Mass.

Remington's Langshans.



See their winnings at the Boston show:—Cock, H. C.; cockerel, 1st and V. H. C.; pullets, 1st, V. H. C. and H. C.; breeding yard, 1st; special for best cockerel and 4 pullets; special for best breeding yard, and special for best display.

Excellent young stock for sale. Eggs, \$3 per 13; \$5 per 26.

J. S. REMINGTON, Box 136, Greenville, R. I.

WHITE Wyandottes SILVER BUFF GOLDEN.

1st cockerel, 1st and 2d pullet, 1st pen; also 3d cock; 3d cockerel, on Whites; 2d, 3d, 4th pullet, on Buffs, at Rhode Island show, in hot competition.

50 Fine COCKERELS For Sale

That will please you, \$2, \$3, \$4 and \$5 each. Also a few yearling cocks. Your money back if not as represented. WILL H. RAYMOND, Box 696, Central Falls, R. I.

Do you want to increase the size of your

Langshans?

We exhibited the largest birds at

Boston, '99

And won 1st on hen; 2d on pullet; 4th on pen. Eggs from our best pens, which include all our winners, \$2 per 15; \$5 per 45. Best B. P. Rock or W. Wyandotte, \$1 per 15, straight; incubator eggs, \$5 per 100. PLEASANT VALLEY POULTRY FARM. Address BATTY BROS., Methuen, Mass. Box 105, Lawrence, Mass.

Why the Poultry Business Is Not Likely to be Overdone.

Written for FARM-POULTRY.

Every now and then I see a communication in some paper from an anxious subscriber asking if there is not a likelihood that the poultry business will be overdone. The answer that is usually given is that so long as we import into the United States several million dollars worth of eggs and poultry each year there is no danger. With all due respect for editorial sagacity (and I have been an editor myself), it does not seem to me that this answer is entirely satisfactory. The poultry products that are imported into the United States come largely from that portion of Canada that is contiguous to our own territory, and that for purposes of commerce is practically a part of our own country. The causes that operate to produce an increase of eggs and poultry on one side of the border operate to produce a similar increase on the other. If the poultry business is not likely to be overdone, it must be for another and better reason.

That there is a possibility that the poultry business may be overdone, is a proposition that I think no one will undertake seriously to controvert. The great problem of the present day in commercial and manufacturing circles, is the problem of consumption. We produce more goods than we can sell, at least more goods than the market requires. What is the cause of the strong sentiment in favor of the retention of the Philippines? It is that our merchants and manufacturers may find an outlet for their surplus products. We have come to a time in our industrial history when here in the United States we can produce in eight months as much as the people can consume in twelve. As a consequence we have low prices, shut downs, congestion, and general uncertainty in the business world.

In agriculture, too, we have come to a time when consumption does not equal production. What is the reason there are so many abandoned farms in New England? It is because on them farming cannot be carried on at a profit; the products will not sell for what they cost.

Within my lifetime (and I am a comparatively young man), I have seen several lines of farming become unprofitable, because so many went into them that they were done to death. When I was a boy, in the state of Maine where I lived, every town was crazy to have a cheese factory. They were put up everywhere. As a consequence the market was fairly glutted with cheese, and farmers could not get their money back on their product. Later the apple tree agent perambulated the state, with his fairy tales of fortunes to be made in raising apples. Orchards were set out on every hillside. What has happened? In "apple years" apples cannot be given away, and in other years there are none to sell. I have known a man to ship apples to Liverpool and receive in return, not a check for a goodly sum, but a bill of \$60 for freight and commissions.

Farmers have had a similar experience with sweet corn. It was said that it was impossible to overdo the corn canning business in Maine; that there was something about the soil and climate of the state that gave sweet corn a peculiar and delicious flavor. Corn canning factories were built on every hand. Now the industry has nearly become extinct, owing to the low price of canned corn and the competition of the west.

That there is a possibility that the poultry business may be overdone, follows from these analogies. That there has been a large increase in poultry raising in the past ten or fifteen years, is patent to everyone. The state census of Massachusetts shows that in the decade from 1885 to 1895, the value of poultry products in the state increased 73.77 per cent.

The reason why the poultry business is not likely to be overdone lies in the very nature of the business itself. There is no business in the world requiring more constant care and intelligent supervision.

The reader will pardon me for illustrating from my own case. I have a flock of White Wyandottes of which I am very proud. They are phenomenal layers. While all about me men are complaining of not getting any eggs, my egg basket is well filled every night.

There is a steady local demand for my eggs for hatching. Last spring while my neighbors were selling their eggs at ten and twelve cents a dozen, I had more orders than I could fill right in town for eggs at fifty cents a sitting. From October 1, 1897, to October 1, 1898, my hens paid me a profit of \$3.25 apiece. This is not counting my time. If I should divide the net profit I received from my hens by the number of hours I spend in taking care of them, it would not give me more than laborer's pay, say fifteen cents an hour.

It is a point that cannot be too strongly impressed upon the mind of the prospective poultryman that *one cannot reap where he has not sown; that one must not expect to get something for nothing.* The returns from the poultry business are in exact proportion to the care and thought put into it.

I see much said in the papers about the farmer's hens. The place and manner in which he keeps them are described. The farmer is held up to ridicule for his lack of knowledge of hens, and for his indifferent care. The average hen on the farm does not lay a hundred eggs a year, and yet it is probable that the farmer makes more clear profit off his hens than any other man in the business. The reason is they cost him next to nothing. They roost under the barn or on the big beams in the haymow. They pick up nine-tenths of their living. The one hundred eggs they lay apiece a year, are nearly clear profit. The farmer can keep a few hens, and make money from them. Should he increase his flock and care, the profit would not increase in similar ratio. The farmer is a busy man, and the time spent on his hens is so much time subtracted from his other work. I shall show in summing up, however, how the farmer can make more money than he does now without much extra care.

Since my article in FARM-POULTRY of November 1st, 1898, I have received letters from all over the country from men who were thinking of engaging in poultry raising. Some were even thinking of throwing up good jobs to go into the business. There are others. To such I would say: Go slow. Get your experience before you go on your farm. Don't run in debt. Don't expect too much. Remember, one cannot get something for nothing.

There are four classes of men whom I think may make a success of the poultry business:

1. The fancier. By the fancier, I mean not only the man who is interested in the fine points of a breed, but the man who keeps poultry not for the dollars and cents they bring in, but for the interest he has in them. My hens pay me a good profit; but that is not why I keep them. I should keep them even at a considerable financial loss. I like to see them about; I like to go down and spend a few minutes with them when I am weary of study and thought—they rest me. My wife calls them my "little doctors."

There are thousands of business and professional men in small cities, villages, and suburbs, whom it would pay to keep hens. Besides the satisfaction of having strictly fresh eggs for the table, and juicy roasters and broilers for dinner, there is the joy of seeing them about the place; especially are they a delight to children. There is nothing in the world that will so delight a little child as to have a downy palpitating chick laid in his chubby hand.

2. The farmer. The farmer can keep anywhere from thirty to fifty hens to good advantage. If he desires to keep more, it will be necessary for him to build a lean-to on the south side of his barn, or put up a special house for their accommodation. I do not believe, however, that it will pay the average farmer to keep a large number of hens. In order to do so, it will be necessary for him to spend considerable money for equipments, and the time he spends on his hens is just so much subtracted from his other farm work. Instead of keeping more hens, it will be wiser for him to keep better pens. Thoroughbreds will eat no more, and lay far more eggs, and make far better fowls for the table than dung-hills. It will pay a farmer to improve his stock, either by purchasing a few sittings of eggs from a reliable breeder in the spring, or by buying a blooded rooster in the fall.

3. The small poultry farmer. I mean by

this, the man who keeps from five hundred to one thousand fowls. Such a number, well cared for, will give a man a good living. The man who keeps from five hundred to one thousand fowls must not expect to get rich. He will make only about day pay; but there will be an independence about his manner of life that a king might envy. The small poultry farmer should be a man with a genius for details, a man who is in love with his business, a man who has money enough to buy a place, and leave a few hundred over. Such a man, and no other, should launch out into this business.

4. The large breeder. There will always be room for men of brains and capital to engage in the business on an extensive scale. Such men are needed to originate new breeds, to keep the present breeds up to the standard, to supply stock and eggs in large quantities. To such men the poultry business will yield a good return; but no larger than any other legitimate business into which they put an equal amount of brains and capital.

REV. EDGAR L. WARREN.

Wolfboro, N. H.

Brown vs. White Eggs.

One of those periodic discussions is now going on through the press concerning the cause and especially the value of colored over white egg shells. Columns are being written to prove the one better than the other, when it seems as though a few moments reflection would satisfy any one of the absurdity of the position. There can be no difference in the chemical make-up of the shell, save in the coloring matter, and for some reason this is peculiar to certain families, notably the Asiatics, and some of the American breeds. The Spanish classes produce white eggs, as a rule, though here certain families are the exception. Why a Leghorn running with a Plymouth Rock should lay an egg with white shell while her neighbor deposits a brown one alongside, is something of a mystery, but no one can rightfully claim that the two hens eating from the same feed boxes and living on the same soil will necessarily produce eggs differing in food value. The difference comes when the hens are neglected or poorly fed, or when they eat filth, damaged grain and meat. The stomach is a wonderful transformer, but it cannot do everything. The man who feeds on green clover, green bone, sound grain, fresh vegetables, and pure water, and provides clean working and living room for the hens, will have no trouble about the quality of his eggs, be the shells white, pink or dark brown. Value is inside the shell, not in the coloring matter which enters into its composition. — *Maine Farmer.*

Poultry in Canada.

Mr. A. G. Gilbert of the experimental farm, Ottawa, congratulated the association on the great success of the show, the largest and best in the history of the society. Poultry development had within the past twelve months taken place in leaps and bounds. Agricultural development in all departments had been very great, but today there were no more ready or better money makers for the farmer than the cow, the hen, and the pig. As regards poultry keeping, there was a difference between the English and Canadian farmers. The former bred his poultry with a view principally for table use, but the Canadian farmer had actually two strings to his bow, for he had a winter market of high prices for his eggs, and when eggs were becoming cheap he could convert them into poultry for home consumption, or export to the English market, the latter almost without limit for a superior quality. In consequence the thoroughbred was the best for our farmers, being good winter layers and rapid flesh makers. Experimental shipments of specially fattened poultry to the English market had been very successful. The birds shipped were first or second crosses, and sold at a handsome margin of profit. With pure bred Plymouth Rocks or Wyandottes he believed a still better margin of profit than seventy cents per pair could be secured. — [From the Toronto *Globe* report of the annual meeting of the Ontario Poultry Association].

His Fifth Year.

This is my fifth year with FARM-POULTRY, and I couldn't keep house without it.

Antrim, N. H.

M. S. F.

FARMERS KNIFE FREE! To Buyers of MAY'S SEEDS.

A test of MAY'S Northern Grown Seeds will at once prove their superiority and we therefore make the following liberal offer to readers of this paper.

30 PACKETS FOR \$1.00

Cut out this Advertisement and send us One Dollar for the following magnificent collection of The Best Vegetable Seeds. (Retail price is over \$1.50) and we will send you the entire thirty packets and give the Cattle Knife FREE. All postpaid.



Beans, Golden Wax.
Beans, Early Mohawk.
Beet, Market Gardener.
Beet, Dwarves.
Cabbage, Early Summer.
Cabbage, Fottler's Brunswick.
Carrot, Best Long Orange.
Carrot, Oxheart.
Melon, Musk. Hackensack.
Melon, Water, Phinney's.
Onion, Red Wethersfield.
Onion, White Queen.
Peas, May's Sunol.
Peas, First and Best.
Parsley.
Parsnip, Hollow Crown.
Corn, Crosby's Early.
Corn, Stowell's Evergreen.
Cucumber, Evergreen.
Cucumber, White Spine.
Lettuce, Early Simpson.
Lettuce, Buttercup.
Melon, Water, Cuban Queen.
Radish, Early Scarlet Turnip.
Radish, White Olive Shaped.
Radish, Wood's Early Frame.
Spinach, Curled Bloomsdale.
Squash, Sibley.
Tomato, Beauty.
Turnip, Purple Top.

KNIFE FREE.

This knife is just what every farmer should have. Extra weight, finely polished ends, three heavy steel blades including hoof blade. We give it FREE to every person ordering the above Dollar Collection through this advertisement, or we will send the knife to anyone ordering 14 packets (your choice) for 65 Cents.

READ THESE.

Buffalo Lake, Minn.—Seeds and knife received and am pleased with the collection. The knife is a dandy and worth twice the amount. M. L. NIELSON.

Cologne, Minn.—Seeds and knife have arrived and it is more than I expected for \$1.00. A good bargain. H. MATTHEW.

Dassel, Minn.—Received seeds and knife sent for and I think the knife alone is worth what I paid for all. C. ANDERSON.

Crowley, La.—Was well pleased with seeds and knife just received. E. QUINN.

Seed Catalogue Free. Write for it.

MAY & CO., ST. PAUL, MINN.

PRIZE WINNING BARRED ROCKS.

Clean sweep of 1st prizes at Amesbury, Mass.

SCORED

95 1-2, 94 1-2, 94 1-2, 94 1-2, 94 1-2, 94.

1st cockerel. 1st pullet. 1st pen.

Cockerels full brothers to above, \$3--\$10 ea.

F. E. COLBY, Bow Mills, N. H.

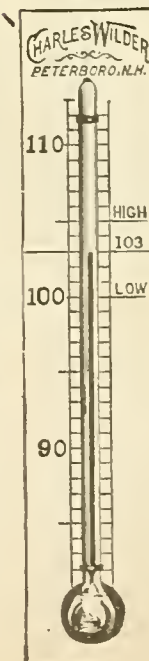
Eggs for Hatching

FROM CHOICE FARM RAISED

WHITE WYANDOTTES.

Price, \$2 per sitting; 3 sittings for \$5; incubator eggs, \$6 per 100.

R. H. NOTT, Hanover, Mass.



THE BEST Thermometer

Must be used to make the best

INCUBATOR

do its best work.

Charles Wilder,
PETERBORO,
NEW HAMPSHIRE,

Has for 35 years made accurate Thermometers of all kinds.

We Sell

SEASONED INCUBATOR THERMOMETERS

By Mail,

Two, \$1.10; Six, \$3.

A Personal Experience.

Written for FARM-POULTRY.

The name of your inestimable paper being FARM-POULTRY, will you let one who has spent all her days on a farm tell of a few things which she has learned by experience? These things may be of no value to the person who makes poultry his sole business, and has plenty of capital to purchase anything he may need in his business; but to the person of small capital, making poultry a side issue, on a farm not yet free from mortgage, the things I shall speak of may be of help.

In the first place I will tell how I hatch chickens. My incubator is still to be purchased, I hope in the near future, but while that is being decided by the committee on ways and means, I must depend on the sitting hen. As it is no more work to care for one hundred or twice that number of chickens if all hatched at the same time, than for twenty, I buy, beg and borrow broody hens enough to cover what eggs I wish to set. Of course it is of no use to try to raise broilers by this method, and I do not think there is much profit to a common farmer in raising chickens, except to furnish pullets enough to keep his laying stock good. The crows will pay for raising, and that is about all.

Having collected my hens, I have my nests built on the ground, with air slaked lime under the straw for a disinfectant and insecticide, and side by side with a partition between and a cover that will let in but little light. I give each hen all the eggs she can cover, for I do not set them until April. I have given a Brahma hen twenty-five eggs before now with good success. I arrange my nests and put biddy on at night; after feeding her well, cover her over, and leave her to her own devices, except for an occasional peep without uncovering her, until the second day. I then uncover my nests, let my hiddies off, and feed and water them, staying by until time for them to return to their nests. There are usually some hard fought battles the first and second times the hens come off, but as I guard the nests no harm is done, and they get acquainted after awhile, and prefer eating out of the same dish to going hungry. The first time but few will go on to the nest alone, and here is a chance to show how diplomatic you are. I coax and shoo, and gently wave my apron. If that don't answer I catch biddy by the legs and put her on to her nest with the cover down. I rarely have one refuse outright to sit. Last season, however, one Brown Leghorn biddy persisted in standing up in spite of me, and I had to put another hen in her place.

The fifth day I test my eggs, with the elaborate outfit of a cylinder of brown paper and a lantern. After taking out the infertile eggs I even up the number in each nest as well as I can. I let my hens off the nest only every other day, when I feed them whole corn, water them, and they have a chance at a dust bath, which they are generally glad to avail themselves of. I look after them often while hatching, taking out broken shells, and occasionally finding it necessary to help a chicken out of the shell. As soon as hatched I dust hen and chicks with insect powder. When I take them from the nest I double them up, putting half the hens back in the laying pens. My chicks have a small covered run with a larger one outside. I keep them under cover cold, windy, or wet days, until they are two weeks old; after that they go in and out as they please. By the time they are ten days old I have taken all the hens but one away. It was quite a curiosity to some of my neighbors to see one hen leading a flock of one hundred chickens, but they are all right that way. I dust them at night occasionally with insect powder, when huddled together, and never have any trouble with lice. I feed equal parts corn meal, shorts, and coarse flour, with a handful of cut bone or meat, and a handful of gravel. If I have a hobby it is gravel. More chicks and fowls die for lack of gravel than ever died any other way. It is the predisposing cause of every disease chicken flesh is heir to. Last year I lost no chickens throughout the season.

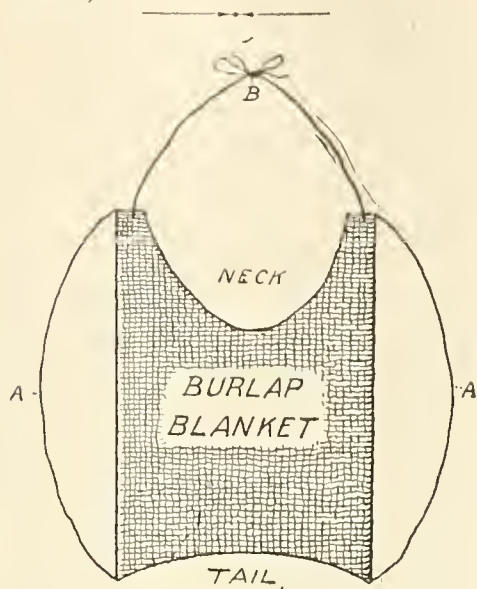
I sell the crows as soon as I can find any one to buy them (usually at three months old), for about ten cents per pound live weight.

My pullets hatched May 15th, began laying in November.

I had no expensive machinery; I spent but little time, but I had "good luck" simply because I supplied their natural wants in a natural way.

Mrs. H. M. P.

Glover, Vt.



Blanket for Hens With Torn Backs.

Written for FARM-POULTRY.

I saw in December 1st FARM-POULTRY a letter from R. G. W., Salem, Mass., asking for advice about preventing cocks from tearing hens. I have always used a blanket, and it works well. There is no need to take the hen out of the breeding pen, as the eggs of the hens wearing the blankets are as fertile as those of the ones without them. I enclose sketch of the blanket. It is made of burlap. It is hemmed and fitted with soft strings or tape, as indicated in sketch. The blanket is dusted with insect powder, and then put on over the wings, binding them close to body; the soft strings A A go between the legs, and string B ties snugly under the crop. Once put on it is kept on until hen is cured. If the blanket gets torn I darn it and put it back again. I have used the blanket with success, and write you hoping that it may be of benefit to some of your readers.

Maiden, Mont.

OTTO ANDERSON.

Value of Good Breeding.

While we talk poultry almost solely for the benefit of the farm poultry grower, with whom utility, either for meat or eggs, or both, is the chief, and indeed, the sole consideration, we are, nevertheless, quite as much opposed to scrub stock as the veriest fancier in the country. For market purposes we do not have on our own place pure bred cattle or hogs, but we insist on having very high grades, because we know that they will make a profit when common stock will not, and that when common stock will make a profit, plenty of good blood will make a better one. The same principle applies to poultry, and we are glad to see the tendency on the farms where poultry is grown to maintain flocks that are well bred, although refinements of feather and fancy points may well be disregarded by the farm poultry grower. Some farm poultry yards are improved by getting a few sittings of eggs from pure bred flocks; others keep the common hens as long as they are useful, and introduce a cock of the breed they prefer, and by that means seek to grade up as the farm cattle grower grades up his herd of cattle. When this method is pursued there is one point about which the poultry grower should be particularly careful. He should frequently introduce new blood to avoid inbreeding and consequent weakness and lack of vigor, and he should likewise be careful in the selection of the breed toward which he proposes to grade up, and having once selected it, stick to it. Let every male that is introduced into the flock be of that breed. Don't be persuaded that cross breeding is a good thing. Many a man has been disgusted with good blood when the fault was not in the blood at all, but in himself. He has proceeded upon the theory that good blood is good blood wherever you find it, and that one can use almost any kind; whereas, the truth is that the shortest way back to the scrub is to neglect the flock a little and introduce each year a male of a different breed. The result

of this course is that such a fight between the conflicting hereditaries and prepotencies of the various breeds is set up in the flock, that it lands, in the course of a year or two, on the dung hill where breeds originated. Having chosen a breed, stick to it, and it will not be long until the whole flock will be practically pure bred, and if it has received proper treatment may, perhaps, have even more vigor and constitution than a flock that started with pure bred fowls on both sides.—*Iowa Homestead.*

Hope Farm Notes.

Egg Records.

Last year, at this season, we had about one hundred and seventy old hens and about forty pullets. They laid during November, 1897, just sixty-one eggs. Most of the hens were bought in the New York live poultry markets. The pullets were mostly of our own raising, and were late hatched. This year, we have about one hundred pullets of our own raising, and about thirty yearling hens. They laid just sixty-two eggs last month. We know that this is a bad showing, and that many poultrymen will say that we ought to be ashamed of it. However, it is the truth, and that is what we are after. Our pullets look bright and lively, and eat well. The P. Rock pullets are starting ahead of the Minorcas of about the same age. One objection to the Minorca is that it is a late maturing bird, though when it does start it keeps everlastingly at it. We have tried to produce an earlier maturing bird by breeding in a dash of Brown Leghorn blood, and our first laying pullets last fall were of that strain. Our flock laid one hundred and one eggs in October.

What Ails the Hens?

Our neighbors all complain this year about the laziness of their pullets. This letter reached us about the middle of November from New York state, and is a fair sample of others:

Some Ungrateful Chickens.

"I am very fond of chickens, and raise about one hundred each year, of mixed breeds, though trying to have a pure bred rooster all the time. This year I have more Plymouth Rocks, both White and Barred than of any others. Last January I set two hens, hatched eighteen chicks, raised sixteen of them, and felt quite sure that when fall came I would have eggs to sell. Well, from sixty handsome, happy hens, I am getting from one to three eggs a day. The chickens have a good warm, dry house, a 180-acre farm for a run, and plenty of good feed, consisting of wheat, principally—often browned—with a change of corn, and, two or three times a week, a warm mash for breakfast; always clean water. Are they not very lazy, ungrateful hens?"

In spite of all that the poultry authorities tell us, a person must be just about ninety-nine per cent philosopher to face the usual poultry situation in November and December. This season has been a hard one on pullets. We have had a succession of cold wet storms, with but few clear days between them. It has taken great courage in a pullet to start in on her lifework in the face of such weather as we have had. You can hardly blame them for wanting to wait for "some more convenient day" before sounding their nest call. Such silence, however, doesn't fill the grain bin, and so it is that a wet cold November is a trying month for the amateur poultryman. The "authorities" tell us that a pullet from an early laying hen fed on a well balanced ration can't help laying early. They would have us think that such a pullet is like an alarm clock, wound up to drop an egg on a certain day. Don't you believe it. There is no such dead sure thing in poultry breeding. Our experience is that pullets are, at times, bound to act in the most unaccountable way.

Hen Care.

We are feeding this winter a morning mash composed of one part dried meat by weight, one part middlings, two parts bran, and two parts corn meal. This is fed warm. Every night we fill the 25-gallon cooker with a mixture of cabbage, small potatoes, and turnips, with ample water. We start a good fire under them, and put in some big junks of wood just before going to bed. In the morning it is still hot. We use the liquor for mixing the hen mash, and feed the solids to the pigs, with bran added. This hot liquor suits the hens well. At noon and night we feed cracked corn, and we keep cabbage constantly before the hens. Just now the weather is very disagreeable, and the ground is covered with snow. The houses are cleaned frequently. We like to keep the under side of the roosts well smeared with tar.—*Rural New Yorker.*

THOMPSON

ADDS BY PURCHASE THE

First Prize Breeding Yard White Wyandottes

AT THE

BOSTON SHOW

TO HIS

"STAY WHITE STRAIN."

There were twenty-two yards from America's best breeders in competition, and this pen were Easy Winners.

With this grand addition of new blood, the FOUR RIBBONS my birds won in the "Single Bird" class at BOSTON; the Ten Regular and Special prizes, including Silver Trophy Cup, won at Haverhill's Big Show. My CLEAN SWEEP of every first prize but two (and was tied for one of these). EVERY COLLECTION, Display, and Sweepstake at Amesbury, Ten of the birds shown averaging to score 94.1-2 EACH. I am offering Eggs from pens containing more high class prize winning blood than any breeder in America. No "Private Pens" or "Special Prices" on my farm. Every customer used the same, and gets his eggs from BOSTON 1st PRIZE PEN as well as from all the other prize matings.

EGGS	FROM SEVEN PRIZE PENS.	
	One sitting	\$3.00
	Two sittings	5.00
	Three sittings	7.00
	Four sittings	8.50

Order Early.

I need most of my eggs, and shall sell a limited number only. A fair hatch guaranteed. My descriptive circular of matings and winnings mailed on application.

J. H. THOMPSON,

Box 319.

Haverhill, Mass.

GAINLEY'S

WHITE WYANDOTTES

Win first and special on yard at Boston, 1899, 6th on hen. My birds have won at Malden, Stoneham, Peabody, and Lynn. At the '98 Lynn show, I won 1st, 2d, 3d, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, 29th, 30th, 31st, 32nd, 33rd, 34th, 35th, 36th, 37th, 38th, 39th, 40th, 41st, 42nd, 43rd, 44th, 45th, 46th, 47th, 48th, 49th, 50th, 51st, 52nd, 53rd, 54th, 55th, 56th, 57th, 58th, 59th, 60th, 61st, 62nd, 63rd, 64th, 65th, 66th, 67th, 68th, 69th, 70th, 71st, 72nd, 73rd, 74th, 75th, 76th, 77th, 78th, 79th, 80th, 81st, 82nd, 83rd, 84th, 85th, 86th, 87th, 88th, 89th, 90th, 91st, 92nd, 93rd, 94th, 95th, 96th, 97th, 98th, 99th, 100th.

GEO. L. GAINLEY,

100 Gardiner St., Lynn, Mass.

GIANT STRAIN

Light Brahmas

30 regular and special prizes at the great Boston show, Jan. 17-21, 1899, including 1st, 2d, 4th, 5th and 6th cock; 1st, 2d, and 6th pullet; 1st and 6th hen; and that grand prize, 1st exhibition yard. Among the many specials awarded us are the Greenhalge Cup for best display bred and raised by exhibitor. Also \$10 for best cock and 4 pullets; \$10 for best 2 cocks, 2 hens, 2 cock's and 2 pullets; \$10 for best cock, hen, cock's, pullet, and exhibition yard; and ribbon for whitest male, and for best shaped female. When the competition is considered we claim this to be the greatest record ever made by any breeder of Light Brahmas.

If you are looking for breeders write us. We are now hooking orders for eggs at \$4 per 13; \$7 per 26; \$10 per 39.

ROLLINS BROS.,

Woodville, Mass.

JOHN L. DAKIN,

44 Evergreen St., Roxbury, Mass., breeder of

PURE WHITE WYANDOTTES.

Commended for pullets at Boston show, 1899. A few selected breeding pullets and cockerels at reasonable prices. Birds I raised have taken prizes all over New England. Choicest matings selected for my pens, for vigor, size, fine points and laying qualities. Brown egg strain. Eggs for hatching, \$2 for 13; \$5 for 39; incubator eggs, \$6 per 100. Inspection invited.

ONTARIO FARM

Won 7 first prizes on 17 entries at Rochester, '99.

Eggs \$1 sitting. W. Wyandottes, S. W. Leghorns, W. Indians. Circular.

GEO. HYDE, Appleton, N. Y.

SOME HENS LAY

In winter—why not yours? Here's the secret. The food must take one of two channels. One forms meat and bone, the other, eggs. Lee's Tonic Powder turns the digested food into the channel for eggs; keeps the digestive organs strong and healthy, prevents over-fat and disease. Not an ordinary condition powder and not a stimulant. For 30 cts. we will send, as samples, a 25c. package of Tonic and a 30c. can of Lee's Lice Killer, the popular insecticide which kills all vermin affecting poultry by simply painting on roosts. 65-page book on "Insects" free. Address nearest office.

GEO. H. LEE CO., 1110 Farnam St., OMAHA, NEB.
178 Michigan St., CHICAGO. 68 Murray St., NEW YORK.

Reducing the Cost of Feeding Hens.

WHICH FOR FARM-POULTRY.

It has lately been borne in upon me that neither the actual cost of feeding fowls nor the possibilities of reducing that cost by judicious choice of feeds, has been considered with sufficient care by the great majority of poultry raisers. A few days ago a man rose in an audience composed almost wholly of those who raise more or less poultry, and made the statement that he could feed five hens one day for one cent. Instantly the hall was filled with a murmur of disclaimer, and more than one demanded with incredulous tone that he tell how it was done.

A brief glance at the facts will show us that the cost, at the above rate, is one-fifth of a cent per day for each hen, or seventy-three cents per year. Is there anything wonderful in feeding hens for that amount? Nearly every one in this good sized and experienced audience seemed to think so. The locality was southeastern Jersey, where prices are far from being so low as at the west, but where they are also lower than in some localities. The price of corn was stated to be at that time, forty cents a bushel.

Corn, as the most generally used of all poultry grains, probably, may be taken as the best standard whereby to measure prices. If six pecks of corn is a liberal allowance per hen for a year's subsistence, (as I think is very generally conceded), the yearly feed bill for one hen in that locality would hardly rise above sixty cents when fed on corn alone. It will depend, then, on how successful poultrymen are in substituting other and better feeds for the corn, whether their average expense turns out to be seventy-five cents, or twice seventy-cents, or somewhere between these figures; or, dare one say, below them? I should say it is hardly possible, at the east, to bring it below seventy-five cents, for yarded fowls, except in cases where one has an exceptional chance to get cheap protein; but that there are localities where these figures are discounted quite largely, is shown by the report of the Utah station poultry work for a year; and these reports (given in F.-P. not long ago, I think) show also how possible it is for different management and different birds to vary the cost in the same locality. The average cost of feed, as given, varied from fifty-three cents for old Leghorns with no exercise, to eighty-one cents for exercised Light Brahma pullets. In all cases, moreover, the price of the three grains used was barely four cents a hundred more than corn at forty cents a bushel, as in the case of the Jersey doubters. Grains, cabbage, mash, and bones were used, and yet the cost in seven cases out of nine, did not go above sixty-three cents, or three cents above the cost of the all corn diet in New Jersey.

It is to be considered, too, that these figures are for yarded birds, which must be given every mouthful they eat, while most of the doubters first mentioned were men who had summer range for their stock. Do not all these facts prove clearly the misapprehension as to facts which I charged at the outset?

Now if we are to study methods of reducing cost of feed, it must be largely at one point. I think most of us understand in these days that the most costly portion of our egg ration is the protein, which we are constantly studying to increase. We may well ask whether vegetable proteins are not cheaper than those obtained from meat, and also, whether they can fully take its place.

A short time ago I sent to a large dealer in New York city for prices on gluten meal, linseed meal, pea meal, and middlings. No gluten was in stock; but linseed meal was priced at \$1.57 per hundred pounds; middlings at \$1.10; and pea meal at \$1.90. That is, the protein in linseed could be bought for a trifle over one and one-half cents a pound; that in middlings for a trifle over one cent; that in pea meal at nearly two cents a pound. Not only was the protein in the pea meal sold at an actual higher price, but along with it must be bought, for each twenty pounds of protein, eighty pounds of materials of less value, all of which must be paid for at the rate of nearly two cents per pound. Certainly, with a higher actual price, and more cheap material to the hundred, pea meal would be an ill product to look to for our

protein. To be sure, middlings has towards five pounds less protein to the hundred, but the great difference in price far more than makes up for this.

There are those who believe that nothing can take the place of meat. Meat meals or scraps can be bought at \$1.50 a hundred to \$3 a hundred. We do not hear much about the more costly ones having more protein to offset this difference in price. In fact, prices and analyses do not follow an upward grade together at all, so far as I have seen analyses; yet one lot, consisting of five brands of meat meal and scraps, varied from twenty per cent of protein (as analyzed from open market goods by one of our state stations) to fifty-five per cent of protein. In phosphoric acid the variation was from four per cent to twenty-one per cent approximately; yet, as less than three per cent can be used by the living animal organism, all the apparent gain in this is but waste.

The meat meal, which contained only twenty-nine per cent of protein, sells at about seventy-five cents less per hundred than those of highest market price. The protein in it costs sixty-five cents, and the rest is paid for phosphoric acid and bone, or ash. If we can get a brand which analyzes fifty-five per cent of protein for only seventy-five cents a hundred more, is it not clear that we are throwing away a good bit of money when we buy the supposedly cheaper brand? The five brands analyzed, as above noted, gave 29, 33, 36, 52, and 55 per cent each, plus a small fraction. As these are stronger in protein than any other foods available to the poultry feeder, and almost the only ones besides linseed meal, gluten and buckwheat middlings, with which we can safely pull down our ratio, they throw our work out of balance most quickly if they are not what we suppose them to be. It is hardly possible to have any secure knowledge as to the actual ratio of our feed unless we have the analyses of these meals; and, unless we have such analyses we are safer in using some of the concentrated vegetable products which do not vary so greatly as the cut bone. At least, I think we should do more experimenting along this line of vegetable proteins, which ought to be more wholesome, also.

Another thing to notice, is the fact that the mere possession of a good per cent of protein does not assure that any particular product will help us to pull down our ratio. For instance, though bran has sixteen per cent protein, it has so much of the carbohydrates and fat that its ratio is scarcely below 1:4; and, though potatoes have but a trifle more than two per cent protein, yet they contain so much water that the ratio of the protein to the other solids is 1:8.

The question as to how much could be paid for buckwheat, and still have it cheaper than wheat, came up not long ago. Many would say, without much thought, that buckwheat at a lower price per bushel would, of course, be cheaper than wheat, both being good known egg foods; but the fact is that buckwheat has more than five times as much crude fiber as wheat, and could be as valuable only in cases where the hens had been overfed on wheat. In such a case, the substitution of buckwheat for wheat might prove of so much advantage that it might really seem to be the better egg food. Ordinarily speaking, the difference in fiber should render buckwheat at \$1.50 per hundred just about as expensive as wheat at \$1.65 per hundred.

I am not by any means trying to prove that all hens in all localities can, or ought to be, kept at a cost of seventy-five cents per head; but, if it be heresy, I am heretical enough to believe that nowhere in this country, on the farm where there is free range, ought the yearly average expense to even approach this figure.

MYRA V. NORRIS.

The hen house furnishes a very rich manure for the garden; but it is a rather one sided manure, rich in nitrogen, so that applications of potash and phosphate will be needed. Wood ashes will supply the potash, but they should never be mixed with the hen manure before they are applied. Kainite will also supply potash, and can be mixed with manure, tending to conserve the ammonia. Lime is a fine thing to have about the hen house, but it should not be mixed with the manure.—*Maine Farmer.*

Profits in Poultry.

In order to have poultry profitable it is, as a rule, only necessary to give the hens as good care in accordance with their requirements as is given to the other stock on the farm. I find that most general farmers give to their horses the best and warmest stables, the best feed and care generally. Then the cows usually come in second best as regards care and feed. Sheep are usually well cared for, and the poor hens are given little if any feed, seldom given water, and are allowed to roost in trees or about the outbuildings as best they can. Laying hens will drink large quantities of water even in the coldest weather if it is only placed in convenient reach of them. After having used a good many contrivances for watering poultry, I procured several galvanized iron drinking fountains, and they are giving us perfect satisfaction. If they get frozen in cold weather we can easily thaw them out; and should we so desire, we can scald them and thoroughly clean them out, thus insuring our hens clean pure water at all times. The fountains are easily filled, and can be carried like a bucket. An egg, it is claimed by analysis, is about eighty per cent water, and yet lots of people never water their hens, and wonder why they don't lay; but aren't the horses regularly watered?

The hens also require plenty of good feed as well as water. Of course comfortable quarters are necessary, too. Many do not turn their horses, cows and sheep out for exercise during cold stormy weather, but how about the hens? Generally speaking they are already out twenty-four hours every day, getting much (?) needed exercise. We wouldn't think of allowing our stock to eat snow if the watering trough was frozen up, but it doesn't hurt the hens—they don't lay any eggs anyhow. In many instances the farmer has no time to spare fussing around with the hens, and the "women folks" have to give them all the care they get. So very many seem to have only one idea in regard to poultry keeping. They think it doesn't pay to give them the warm shelter, feed and good care which the horses and cows get. Grade up your flock, discarding all hens that are old, and all small and undersized late pullets. Aim to have a flock of all one grade, and a standard grade at that. If you do not prefer thoroughbreds, I would say by all means pick out a few of your choicest hens and get a thoroughbred male, and build a suitable pen for them, and only use eggs of this "selected stock" for hatching. In the fall cull them closely, provide a warm house free from dampness or drafts of air, and give them as great a variety of feed, and plenty of it too, and see if you can't make your hens pay.—S. W. BURLINGAME, in *The National Stockman and Farmer.*

Lay Two Hundred Eggs.

Can we produce hens that will lay two hundred eggs per annum? By scientific breeding, as for a good butter cow or a cow milker; as for a good trotter or high jumping horse. Experiments have been made to increase the number of rows of corn on the cob with success. The same method is applicable to poultry breeding. We will start with a hen that lays one hundred and twenty eggs. Some of her chicks will lay one hundred and fifty per year. From these we will pick out layers, and so on, until two hundred or better are the result. At the same time it is just as essential to breed out of males from prolific layers, as it is the females. In fact, it is more so. If we look after the breeding of the females only, we will introduce on the male side blood which is lacking in proficiency, and thus check every attempt in progress. It is just as essential that the male should be from the hen which lays one hundred and seventy-five eggs, and from a male that was bred from a hen that laid one hundred and fifty eggs, as it is that the hen was from one that laid one hundred and seventy-five eggs and whose mother laid one hundred and fifty eggs.—*Poultry Herald.*

Light in the poultry house is an absolute necessity, and the inmates must have it to be in a healthy and cheerful condition. Fowls will not thrive in a dark and cheerless place any more than plants will.—*Maine Farmer.*



NEW MULTIFLORA ROSES.

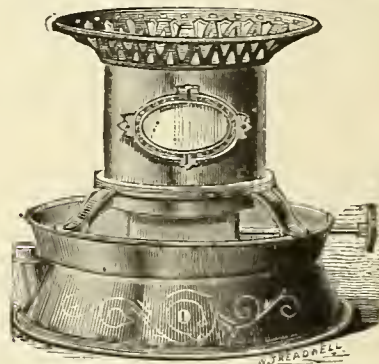
With seed of these new Roses, plants may be had in bloom in 60 days from time of sowing. Plant at any time. They grow quickly and flowers appear in large quantity. Perfectly hardy in the garden, where they bloom all summer. In pots they bloom both summer and winter. From a packet of seed one will get Roses of various colors—white, pink, crimson, etc.—no two alike, and very sweet. Send us 10 cents and the names of 5 or more people whom you know buy seeds or plants, and we will mail you a packet of this Rose Seed with our great Colored Plate Catalogue of Seeds, Bulbs, Plants and Rare New Fruits.

JOHN LEWIS CHILDS, Floral Park, N. Y.

WHITE WYANDOTTES.

Winners at all the N. E. shows, also Boston and New York, 1899. Eggs \$2 per sitting; 3 sittings \$5. G. E. GODFREY, Western Ave., Brighton, Mass.

IMPROVED BROODER STOVES.



For use in home made and other brooders, we recommend our brooder stoves, which are of the most approved pattern. The size of water tank has been increased, will burn from 30 to 48 hours, and being made of best quality steel, are practically indestructible.

Price \$1.25 each

Sent EXPRESS CHARGES PAID on Receipt of Above Amount.

Eggs and stock for sale from the choicest breeding pens. Prices reasonable. Fancy Pigeons on exhibition and for sale at

JOSEPH BRECK & SONS, 47 to 54 No. Market St., Boston, Mass.

Spring



is almost here with its blossoms and balmy days. Planting time, too, and you must have the seedsman's catalogues to see what is newest and best for your Flower or Vegetable Garden. Ours is better and brighter than ever, full of choice surprises, and illustrated in half-tone from direct photographs. We send it free if you are a seed buyer.

JOHNSON & STOKES, 217 and 219 Market St., PHILADELPHIA.

Choice White Wyandotte COCKERELS

March and April hatched, \$2 and upwards. W. W. eggs now for sale. J. F. STOCKING & CO., Montvale, N. J.

HEN WANTS.

If you want your hens to be profitable you must supply them with the necessary food and appliances—working material. We handle a most full and complete POULTRY SUPPLIES embracing line of... from a poultry bit to an incubator. We mail FREE a large illustrated catalogue containing full description and prices to all interested inquirers. HARVEY SEED CO., 19 Ellicott Street, Buffalo, N. Y.

LADIES, RESTORE GRAY HAIR. Expose to light and air. Gray streaks, treated defy detection. May use curling irons. One application. Color harmless. Samples, 25 cents. ALICE MARSHALL, M. D., Box 316, Trenton, N. J.

To Set a Hen.

Written for FARM-POULTRY.

Of course the incubator fellow will pass by on the other side. We expect him to—and probably with a pitying sigh for the old-fashioned souls who will follow the style of incubators used by their forefathers; but as there are many of these latter, a large proportion of whom believe that there is need of only an old hen, thirteen eggs, and three weeks to produce eleven chickens, I want to talk a little upon the better way.

Absurd as the statement may sound, it is an art to set a hen properly; and the doing of it in a proper manner will pay you well in your increase of chickens hatched, the saving of eggs, and the trouble of setting enough extras to bring your flock up to the desired proportions. The go-as-you-please method means broken eggs, smothered and crushed chicks, and discouragement. It often takes time to do a thing well, but the best, even in the prosaic setting of a hen, is never too hard to seek for.

Tea chests make model sitters' nests, but now a days these are rather difficult to find,—so you can get packing boxes about twice the size of the chests, have them divided in the middle, and fitted with sliding doors. They must be large enough and high enough so that the hen will not be crowded, else she will surely roll the eggs together and crush them.

If the box is not a new one, clean and kerosene it well to kill the lurking lice. Then fill to the depth of several inches with sawdust or hay seed, and cover with a layer of hay. Do not use the fine stuff alone, as it is likely to smother the wee chicks when first hatched. Put in a couple of eggs, and after dark tuck your would-be mother in her comfortable quarters, and shut her up.

If she is a Leghorn, or has any wild blood in her veins, she may object—in fact, she may pick forcibly, and stamp her eggs into a hasty omelette; but patience and the most gentle treatment will usually calm her down in a few days. Should it not, it is better to throw her out, for she is likely to torment you all the way through. As a class, Leghorn sitters are chiefly useful for raveling one's temper into shreds; yet they can be used, and are often excellent mothers once you get them safely cooped out of doors.

On the other hand, never use a sitter that is too fat. They are heavy and clumsy, and generally break all the eggs that have not armor proof shells.

The model sitter is usually the medium weight hen of Asiatic breed, or its cross; and she should if possible be a tame one to start with. If you are a woman (this of course is an aside), let me recommend also that she is good natured as well. It is quite appalling to see how vicious a hen will sometimes become while she is waiting for a family.

If your hen, however, promises well, and settles down on her sample eggs, let her remain in darkness till nearly night of the next day; then take her off and put before her corn and water, which should constitute her diet while confined. Fill her nest with your sitting of eggs, and leave her. As it is a strange place you may have to catch her once or twice, and put her back on the nest; but if she is the kind I have recommended she will go on herself in a day or so.

After the sitters become wonted you may let them off in bunches, three or four at a time, whenever it is most convenient; but not at all on the day of hatching.

It is well to provide a dusting box in the sitters' room, and before they are due to hatch, give a liberal dusting with "death to lice." If you do not the little chicks are very apt to get lousy, and perhaps droop and die. Besides, it is a wearisome task to powder all the little things.

This trouble in keeping the hens shut in and letting them off at stated times, seems to me far less than the old barrel method, where the hen came off at her own sweet will, and, maybe, decided to seek freedom after leaving. It is annoying to have a nestful of eggs within a couple of days of hatching, and then have the mother become straggled. A half-inch board in front of a sitter tends to make her meditative and stable minded.

A few eggs will get broken, of course. Clean them at once in warm water, as the

dried on egg may kill the embryo chicks in the other eggs. One saving of this unpleasant job is in looking the eggs over carefully before putting them under the hen. It is always safer not to try any egg whose shell does not look strong.

So you see it is an art to set a hen properly, just as the honest enthusiast may find an art in the most humble detail of his work, and this, more than any outward circumstance, often brings him success.

ANNIE L. ROGERS.

Newburyport, Mass.

What Constitutes a General Purpose Fowl?

The first and most important requisite of a general purpose fowl is to receive as many eggs as possible, and at the same time furnish as large a market fowl in as short a time as possible. We also want as many eggs as we can get in the fall and winter months, when eggs are high. Of all classes of fowls I have tried, I have found the American class the most popular and profitable. They occupy a middle position between the Asiatic and Mediterranean classes. In the American class I prefer the Plymouth Rock and the White Wyandotte. They are the most contented, but will still keep busy. Contentment is as essential to a well filled egg basket as almost anything. A hen that is frightened and nervous every time any one enters the pen, will not lay eggs. Their abundant plumage keeps them warm, and they are active enough to keep busy scratching in the litter which should be provided to scatter the grain in. Their small combs will not freeze so easily as the Leghorn or Minorca, and right here the Wyandotte has one advantage over the Plymouth Rock. The rose comb of the Wyandotte hen follows so close to the head that there is really not enough of it to freeze in a temperature that will not freeze the hen herself. The White Wyandottes are also early layers, equaling in that respect the Leghorn. We have had them laying at four months and two weeks, and it is no unusual thing for the early hatched ones to commence laying at five months old. The Rocks are generally six or seven months old at the earliest.

The next requirement is raising chickens for market, and here we want a chick that will grow to a given weight in the shortest possible time. Both Rocks and Wyandottes can be grown to broiler size in ten weeks, but the Rocks have much larger bones, and consequently less meat in proportion to their size than the Wyandottes. The Wyandottes are shorter and blocky, with short legs and short necks, and well developed breasts. One of the particular points in which the Wyandottes excel is the full meaty breasts. The Wyandottes can be more readily forced than any other breed, and not go off their legs. The Rocks will go off their legs very easily, and when once down are very hard to get up again. The White Wyandotte has no dark pin feathers. As roasters they are unsurpassed. Out of a lot of forty-five hatched in May, there are twenty cockerels weighing from six to seven and one-half pounds. How is that at six months old? Pullets out of the same batch weigh four and one-half to five and one-half pounds.

One of the good qualities seldom touched upon in these days of so many incubators, is the sitting qualities of a hen; but we do not all have incubators, and those of us who do have them do not like to trust a choice sitting of eggs for which we have paid four or five dollars, in an incubator, not when we can get a good reliable hen, one which we know and can depend on to sit on them; and brooders will not scratch up all the May bugs and worms and other insects which add so much variety to their food, and put so much vigor into the young stock. The White Wyandotte makes one of the best of mothers. She is very quiet, and will stand a great deal of fussing and haudling. She will not drag her chicks all over creation, and her abundant feathering covers them well in cold, wet, or windy weather.

One thing I forgot to mention. The White Wyandottes, for their size, are very small eaters. They do not require much more food than the Mediterraneans, and considerable less than the Rocks and Asiatics. When keeping fowls in large numbers, this is an item to be looked at.—Mrs. JOSEPH N. PRUE, in *American Fancier*.

Enameline is the Modern Stove Polish, which means UP-TO-DATE; that is, labor-saving, brilliant in effect, no dust and no odor. It makes a rusty old stove look as good as new in a minute. Put up in paste, cake or liquid form.

J. L. PRESCOTT & CO., New York.

Incubators and Brooders.

We are often asked whether artificial hatching and brooding have any place on the farm, or whether they are not intended only for the specialist who does nothing else than grow poultry. Wherever poultry receives good attention on the farm, and where it is looked to as a source of income and as one of the branches of farm work that is expected to yield a revenue, there the incubator and brooder certainly have a place. The modern machines of the best makes for hatching and brooding are not toys nor experiments. In the hands of those who will give them a reasonable amount of attention and try to learn the "whys and wherefores" for the work they attempt with them, incubators and brooders have some very decided advantages over what would be called the natural methods of hatching and rearing chicks. For example, where the poultry yard is looked to as a source of revenue on the farm, the owner will find it to his advantage to have the chicks come when he wants them, and not when "biddy" takes a notion. Every poultry grower who has hatched and grown chicks with a hen knows how much disappointment there is in depending upon her. By proper feed and management it is possible to make the hens lay just about when eggs are wanted, but we have never yet found any way of making hens sit when they were wanted to sit. Moreover, for every hundred eggs that are incubated by the natural method, one must maintain about eighty broody hens that are not good for anything else, while a three hundred egg brooder will do the work of a couple of dozen hens much more systematically and just when it is desirable, in view of one's market, to have the incubating done. Moreover, when the chicks come out of the shell they are perfectly free from lice, and by the use of a brooder can be kept so until they are of marketable age, a thing that is practically impossible with chicks raised by the natural method. This is a point of very great importance, too, for nine-tenths of all the difficulties that attend the growing of poultry are due to lice and mites. Moreover, when chickens are thus hatched and kept clean by the use of a brooder, loss by vermin, such as rats, weasels, and the like, do not occur. The chicks are protected, and as the feeding is under control, every chick that is found in a healthy hatch can be brought to maturity.

Of course it is necessary to take pains to secure these advantages. One must learn how to handle an incubator, a task, however, that is not at all difficult with the best incubators that are now made; he must learn to handle a brooder, but this, too, is a simple thing, requiring only careful attention to details. If he is to control the feed instead of letting the chicks rustle for it, he must also learn how to feed, but this is beyond the powers of no one. In fact, anybody who wants to depend upon himself and to systematize his work instead of letting it run pretty much as it will, in a haphazard way, and trust to luck, will find that it can be done by artificial hatching and brooding, and that it is not possible in any other way. When one commits the work to the hen it is exposed to chances all along the line. There is the chance of her refusing to sit, of abandoning her nest, of filling her progeny with lice; of rats, weasels and all sorts of vermin that prey on young chicks; of bad feeding, of disease of various kinds, and of all the difficulties and obstacles that stand in the way of doing good work by the happy-go-lucky method. Wherever it is desirable to grow poultry systematically, artificial hatching and brooding has its place.—*Iowa Homestead*.

EXCLUSIVELY.

Mammoth Pekin Ducks, record 140 eggs in season. December layers, heavy weights, Pure White Wyandottes, prolific layers, quick growers, mature early. Eggs, \$1 per 13; \$3 per 50; \$5 per 100. Stock, \$2 each. Belgian Hares, \$1. Fine green cut clover, \$1.25 per 100 lbs.; 500 lbs., \$5. Agents Prairie State Incubators and Brooders, Bargains. **CURTISS & CO.,** Ransomville, N. Y.



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Green as grass, second growth cut in 4 inch lengths, grown and cured by us for our own use. You get the best when you buy of us: \$1.25 per 100. Prices to the trade, 500 lbs., \$5. **NIAGARA FARM,** Ransomville, N. Y.

Poultry Supplies.

A full line of poultry supplies of all kinds. Manufacturer of

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FACTS ABOUT BEES

and all about the production, handling and marketing of honey as taught in **Gleanings in Bee Culture.** It is a handsomely illustrated magazine devoted to the Apian in its entirety. Sample copy and Book on Bee Culture and Book on Bee Supplies, sent FREE to all who mention the name of this paper when writing. **THE A. I. ROOT CO., MEDINA, OHIO.**

PRINCE ALBUS STRAIN WHITE WYANDOTTES,

5 CHOICE PENS. 1st prize breeding pen and 1st prize cockerel, our only exhibits at Milton, Mass., Nov., '98. Cockerels for sale.

EGGS: \$2 per 13; \$3.50 per 26; \$5 per 39; \$8 per 100. Visitors and correspondence solicited.

C. R. POWERS & SON, 51 Train St., Dorchester, Mass.

Eggs For Hatching.

\$1 per 13; \$2.50 per 40, from my choice pens of Black Minorcas, Buff and Brown Leghorns, S. S. Hamburgs, and B. P. Rocks. New 16 page catalogue free. Address **A. G. STAUFFER, Palmyra, Pa.**

OUR BARRED PLYMOUTH ROCKS

AND LT. WT. LT. BRAHMAS.

Brown egg business strains, are still hard at work laying hundreds of eggs for incubators at \$5 per 100; \$1 per 13; besides large numbers for the fancy Boston market. A few choice Rock cockerels at \$2 and \$3.

E. D. PAGE, No. Herman, Me.

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Boston, Jan., '99.
New Haven, Dec., '98.
Hartford, Jan., '98.
Rockville, Sept., '98.
Danbury, Oct., '98.
Manchester, Jan., '99.
Danbury, Jan., '99.
I mate S. C. White Leghorns, S. C. Black Minorcas, White Wyandottes, Lt. Brahmans, Wh. and Barred Plymouth Rocks, for results as the following will show:
At Boston, 13 entries, Leghorns—5 firsts, 1 second, 4 third, 2 fourth and 6 specials. Three entries, Minorcas—3 prizes. Hartford, Leghorns only shown, 2 firsts, 1 third. New Haven, 16 entries—5 firsts, 6 seconds, 4 thirds, and 7 specials. Danbury, 5 firsts, 3 firsts, 1 third. Rockville—7 firsts, 3 seconds, 2 thirds, 6 specials, and society special. Manchester—8 firsts, 3 seconds, 5 thirds, 12 specials.

EGGS—Price pens, \$2 for 15; fine breeders, \$1 for 12; incubators, \$5 per 100. Choice breeding cockerels, \$2 to \$5. Show birds a specialty. State agent for the Star Incubators and Brooders. **ELM POULTRY YARDS, Hartford, Ct.**

OUR EGGS ARE NOT THE DOLLAR KIND

Indian Games, per set \$8.00
Huff Ply. Rocks, per set \$2.00
Pekin Ducks, per set \$1.50
Nica Crystal Grit, 100 lbs. \$1; ton \$7
Chest Oyster Sh's, 100 lbs. \$1; ton \$6.50
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Cracker Cr's 100 lbs. \$1.50
CLEVELAND POULTRY CO., Plattsburg, N. Y.

FARM-POULTRY

PRACTICAL EXPERIMENT CLUB.

In this department all published matter pertaining to the Experiment Club and its work will appear. We want every member to feel perfectly free to ask questions and make suggestions. Discussions of topics suggested to members by their own record sheets are especially desired.

An Entire Year of Experiment Club.

We give this month the annual summary table, made up from the reports of members who sent in records for the full year ending December 31, 1893. Out of something over three hundred pens reported only seventy completed the full year. Some began late, and others dropped out soon after October 1, on account of sales of old stock to make room for new. Quite a number sent in all the records but those for December, and for some reason neglected to complete their year by only one month. With the new club year beginning in October we hope that our second year members will all be able to make full year reports.

The table shows the average egg yield for each hen for each month, and for the entire year in each of the seventy complete record pens. These averages were obtained by dividing the number of eggs reported each month by the number of hens then reported as in the pen. The yearly average is the sum of the monthly averages. In computing the general averages we divided the sum of averages of each month and for the year separately by the number of pens reported for the variety. The fractions expressed in tenths are approximate, it not seeming necessary to carry them out into hundredths and thousandths, requiring as it would considerably more space.

We also give, accompanying the table, a brief review of each of the seventy reports in the "Key to Annual Summary Table." While necessarily incomplete, it serves to point out the prominent features of each yearly report. Nearly all pens were reported as being supplied with grit, shell, and pure water freely. The majority were fairly well fed and cared for; the exceptions will be noted by the reader.

In looking over the general averages it will be seen that the following, ranking in the order named, are above the general average of all varieties: Silver Wyandottes, Buff Wyandottes, crosses, Brown Leghorns, White Leghorns, White Plymouth Rocks, Barred Plymouth Rocks, and grades. Below the general average come: Mixed varieties, Dominique Leghorns, mongrels, White Wyandottes, Anconas, Black Langshans, Light Brahmas, and White Wonders; but it is hardly fair to reckon general averages without taking into account the number of pens of each variety reported, and the varying conditions.

Of pens averaging above one hundred and fifty eggs each hen for the year, are the following:

Barred Plymouth Rocks, Pen 4, 180.5 eggs each hen.

White Wyandottes, Pen 23, 174.5 eggs each hen.

Brown Leghorns, Pen 37, 173.5 eggs each hen.

B. P. Rock-Brown Leghorn crosses, Pen 63, 169.3 eggs each hen.

Barred Plymouth Rocks, Pen 8, 166.2 eggs each hen.

Barred Plymouth Rocks, Pen 10, 158.0 eggs each hen.

White Leghorns, Pen 42, 152.1 eggs each hen.

Brown Leghorns, Pen 35, 151.7 eggs each hen.

White Leghorns, Pen 40, 150.9 eggs each hen.

It is worthy of notice that in the above list of the nine pens making the highest averages, that Barred Rocks take first, fifth, and sixth place, whereas they were low in the rank for general averages; White Wyandottes, also, which failed to count above the general average, take second place for highest record.

We do not count anything as proved except that our members have sent in careful and accurate records, and that these pens made the records accredited to them. We think that the year's record keeping has been a help to our members, in that it has opened their

eyes to the fact that no matter how well the fowls seem to lay, when the record is put down in black and white it somehow looks different, and the results are not so large as when viewed from a memory standpoint only. The averages are, as a whole, undeniably low. When the fact is taken into consideration that in order to pay her keep, at the rate of \$1 per hen a year, a hen must supply at least five dozen of eggs to sell for twenty cents a dozen, it will be seen that many of these hens paid a mighty slim profit, and some were a dead loss.

Many of these hens undoubtedly laid a great deal better than the average for their respective pen,—but how about the others? Our members must be harboring a great many drones—heus that do not lay at all well,—do not pay their keep. Each year they have been breeding from these drones, which, when they lay at all, do so in the spring—the time when eggs are used for hatching. If like begets like, the chicks from these drones are drones also. The ferreting out of the drones by the keeping of individual records would pay. Then it would be easy to breed only from the best layers, and so establish the laying habit.

We must not lose sight of the fact that in a pen of from ten to twenty-five hens averaging one hundred and forty eggs each or better, there are probably some hens that are doing all the work,—some whose records are pretty close to the 200-egg mark,—the others, the drones, keep the average down. In a pen of twenty-five B. P. Rocks averaging 180.5 eggs per hen, some of the hens undoubtedly did better than two hundred eggs each. The same is true of all the other pens,—some of the hens were undoubtedly away ahead of the average for their pen, and were handicapped by the drones.

It is not all in the breed, but in the breeding and growing. In one pen of Brahmas it will be noticed that the growing pullets were permitted to become overfat before reaching laying maturity; after that, no matter how good the stock, they could not be expected to do well. Unless the hens have been bred for eggs from selected layers, they cannot be expected to lay well. There is no reason why, by careful selection in breeding, we cannot bring mongrels to lay well; but think a moment, what are many of our thoroughbreds but the result of a line of careful breeding from selected mongrels? They must become thoroughbreds if bred by careful selection.

Thoroughbred breeding means breeding from selected birds which come nearest to representing the ideal type of the variety. We should add to it, have a still higher ideal, and breed our thoroughbreds from selected good layers, as well as for beauty, then we shall have thoroughbreds that are prolific layers. As breeding for type (beauty), or breeding for eggs, is by selection, it must be true that thoroughbreds are the best layers. If thoroughbred breeding is the only way to produce prolific layers, then we all want thoroughbreds.

By beginning with thoroughbreds which have their type already established, we have the advantage of breeding birds that already have the tendency to breed true. Therefore, with these it will be much easier to fix the tendency to the prolific laying habit than it would if we were obliged to start with a mixed lot, or unknown quantity. By using thoroughbreds only we shall reach our goal more surely and more quickly. The mongrels reported to the club can hardly be classed as "average mongrels," since the people who keep average mongrels do not often keep careful records. The mongrels of the record are probably in the elementary stage of selection for eggs.

Our club represents all classes in poultrydom: we have amateurs, professionals, utility breeders, and fanciers, on our list. Therefore the reports must be fairly representative of the general run of poultry, although some varieties have not been sufficiently well represented—and some not at all. This being so, is it not a gigantic argument for the more general keeping of individual records, or at least of flock records (which surely leads to individual record keeping), and the weeding out of the vast army of heus that do not pay for their keep?

Where fowls are kept for beauty only, and all sorts of schemes adopted to prevent them

from laying until the breeding season, in order to obtain eggs to sell for hatching, we naturally would expect them to produce a large percentage of drones. Probably some of our members bought eggs from such fowls; that may account for some of the phenomenally low averages.

One thing that we notice in the reports is that changes in the weather had very little, if any, influence on the egg yield. In a few instances, where the birds were exposed to severe weather, there was a let up in eggs some days after, more probably due to the exposure than to the climatic change. Extremely cold or hot weather had no apparent effect where other conditions were favorable, and the birds well fed and protected.

Feeding, so long as there was a variety of food supplying sufficient egg material, and with some regularity of succession of foods and method of feeding, did not show any best ration. Erratic laying, when not due to fowls being out of condition, or caused by exposure, was often traceable to irregular feeding or irregular rotation of the varieties of food—the taking away of some food rich in protein and replacing it for a time with a more carbonaceous food. In such cases the egg yield widened out soon after the return to the food with the narrower ration. Fowls having no mash food did not do as well as those fed mash.

It is worthy of mention that seven of the nine pens making best records were housed in scratching shed houses.

While good housing, good care, and intelligent feeding are all three important factors in the getting of eggs, they do not count for much unless the fowls are bred for eggs. The laying habit must be bred in the blood; this is the all important factor in egg getting, and without it the other three don't count.

We want to congratulate our members on their first year's work. We hope that they have learned some valuable lessons through record keeping, and that our annual summary will be an object lesson that will inspire them with the desire and resolve to do better for the new year. Our records are far more valuable than records obtained in egg contests. We award prizes for neatness and completeness only, without regard to egg record, therefore there was no incentive for sending in exaggerated records, and hen men do not boast of the smallness of their egg records. So if the averages are low, it is but evidence of the sincerity of our members, who have not been unwilling to help, by giving us records of how poorly their flocks have done.

We extend our hearty thanks to all of our members who have helped in this year's work, and hope all will continue with us and endeavor to do better next time. The prize awards will be found in another column.

Key to Annual Summary Table.

PEN 1. (Maryland).—205 B. P. R. pullets, March and April, '97, hatch; home reared; flock gradually reduced in number to 92. Housed in five houses; all have scratching sheds; 10 square feet of house room allowed each fowl; free range. Food: morning, mash of ground grains, about one quart to each twelve heus; mash fed until September, then dropped, and a morning feed of wheat, barley, oats, and buckwheat, fed in rotation, was used up to end of year; noon feeding of green cut bone, one-half ounce per hen daily; night feeding of corn, oats, barley, wheat, and buckwheat in rotation until July, then barley and oats for rest of year.

PEN 2. (Connecticut).—62 B. P. R. 2 year olds, yearlings and pullets; home reared; reduced to 24 later by disposal of old stock. Comfortably housed, three pens 12 x 13, small yards. Morning, mash made of 2 parts ground grain, 2 parts wheat bran, 1 part animal meal, and three parts cut clover alternated with vegetables; noon, cabbage or other vegetables alternated with oats; night, oats, corn, or wheat.

PEN 3. (New Hampshire).—35 B. P. R. 2 year olds, yearlings, and April pullets; reduced to 20 later. House 16 x 20; have the run of about an acre, part woodland. Fed twice a day, no mash. Oats each morning; at night, wheat and cracked corn in regular alternation. Laying very erratic.

(Continued on page 80).

Hens lay eggs

when fed with the things eggs are made of. Eggs are principally albumen, produced by the hens from the protein they absorb from their food.

Bowker's Animal Meal gives the hen more protein and other egg-making material than any other similar food. Always sold in yellow bags and yellow packages.

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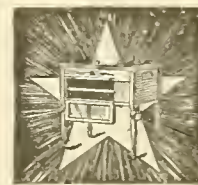
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Wh. P. Rocks

are bred for eggs and meat, with due regard for standard requirements. They are raised on free range, and very vigorous. None better. Eggs, 1 sitting, \$2; 2 sittings, \$3.50.

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Now is the time for spring announcements. Send for proof sheets of our poultry cuts. We have a special proposition to make to those issuing catalogues. We do fine work. Write us for your wants, enclosing stamp.

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PLAINVILLE FARM
RHODE ISLAND REDS.

Having mated my best stock of the following breeds: Rhode Island Reds, single or double comb, Barred Plymouth Rocks, Felch strain; White Plymouth Rocks, Hawkins strain; White Wyandottes, Duston strain; Gold and Silver Wyandottes, Hawkins and Jodrey strain. Eggs \$1 per 13; incubator eggs, \$3.50 per hundred. Have a fine lot of White Wyandotte cockerels at \$2 each.

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VAUCHAN'S
UTILITY WHITE WYANDOTTES.

True Wyandotte type, prolific layers of dark brown eggs. Deep yellow legs that never fade with age. Standard weight.

Buff Wyandottes. A small pen of good ones. Circular and further information free, but can use stamps.

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740 Silk-Finish Cards, Love, Transparencies, Expert Acquaintance Cards, LAUGHING CAMERA, Prize Puzzles, New Games, Magical Illusions, etc. Finest Sample Book of CARDS. Biggest list of Vending and Hiding Name Premiums. All for 2c. stamp. OHIO CARD CO., Cadiz, Ohio.

EXPERIMENT CLUB ANNUAL SUMMARY FOR 1898.

Table Showing the Average Egg Yield per Hen for Each Month, and the Entire Year. Compiled from Full Year Reports of Club Members.
(Decimal fractions are approximate).

Pen No.	Variety.	No. of Hens.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Per Year.
1.	Barred Plymouth Rocks,	205— 92	7.2	8.6	16.3	14.4	11.8	8.6	6.5	5.1	4.9	7.6	8.1	5.6	105.3
2.	Barred Plymouth Rocks,	62— 24	4.9	11.0	19.0	14.2	10.5	10.4	9.2	13.2	9.1	3.5	2.2	1.4	108.6
3.	Barred Plymouth Rocks,	35— 20	6.9	6.2	13.0	13.0	9.2	9.4	9.5	3.8	6.5	.5	.7	2.5	81.2
4.	Barred Plymouth Rocks,	25	13.6	13.6	21.0	21.9	22.5	20.3	19.8	19.5	13.6	7.5	4.2	3.0	180.5
5.	Barred Plymouth Rocks,	25— 24	16.2	11.6	14.4	15.8	14.4	15.3	14.8	12.0	10.2	5.2	2.6	1.5	134.0
6.	Barred Plymouth Rocks,	20— 8	6.6	7.1	14.7	16.5	14.1	16.2	10.0	17.0	12.1	4.8	.9	0	120.6
7.	Barred Plymouth Rocks,	15— 14	13.2	14.5	20.6	19.2	11.0	10.5	13.0	13.6	4.3	1.6	7.3	3.3	135.1
8.	Barred Plymouth Rocks,	15— 13	15.5	11.3	20.2	16.3	17.3	14.5	16.4	16.2	13.5	13.0	4.3	7.7	166.2
9.	Barred Plymouth Rocks,	12	14.3	17.2	19.4	18.3	18.0	14.5	13.3	9.2	8.2	4.4	2.0	4.2	143.0
10.	Barred Plymouth Rocks,	12	16.0	14.3	20.3	20.0	18.3	16.2	15.0	9.6	9.7	7.0	7.0	4.6	158.0
11.	Barred Plymouth Rocks,	12— 14	7.5	12.5	18.5	16.3	14.8	11.3	8.1	7.5	5.3	2.2	2.8	5.9	112.7
12.	Barred Plymouth Rocks,	12	5.0	7.9	16.5	15.7	14.9	11.4	13.9	12.0	13.1	3.8	.1	2.8	117.4
13.	Barred Plymouth Rocks,	10— 6	1.6	3.3	16.6	12.8	9.1	14.3	16.3	15.8	11.3	4.0	0	0	105.1
14.	Barred Plymouth Rocks,	7— 6	4.1	4.4	11.0	9.6	10.2	3.0	7.6	8.3	13.0	5.7	.2	4.1	81.2
15.	White Plymouth Rocks,	24— 14	5.4	10.5	20.1	13.7	14.6	14.4	12.6	11.3	8.1	13.9	6.0	2.3	133.2
16.	White Plymouth Rocks,	13— 12	11.2	11.6	16.8	18.1	17.7	17.7	13.0	12.3	13.1	11.3	1.9	1.2	145.9
17.	White Plymouth Rocks,	15— 14	8.6	11.6	13.3	17.8	12.7	7.7	10.8	10.6	7.7	4.0	0	0	101.8
18.	White Wyandottes,	45— 35	10.3	8.3	12.3	12.2	12.0	10.2	9.9	9.4	7.8	5.7	3.6	2.1	103.8
19.	White Wyandottes,	40	4.0	4.0	12.5	12.7	11.5	8.7	9.5	6.4	2.5	.6	0	.1	72.5
20.	White Wyandottes,	28— 22	8.0	11.5	17.5	11.2	10.1	11.3	10.0	11.5	6.0	3.2	3.1	4.1	107.5
21.	White Wyandottes,	15	9.6	17.0	18.6	13.8	14.8	16.0	15.4	14.7	10.0	5.7	6.0	5.0	146.6
22.	White Wyandottes,	12	11.6	12.3	17.6	9.5	8.0	7.5	7.1	6.9	5.8	4.3	3.0	2.2	95.8
23.	White Wyandottes,	12	18.0	18.1	17.9	15.5	16.7	16.0	15.7	12.6	10.1	8.3	8.1	17.5	174.5
24.	White Wyandottes,	10— 8	1.5	10.4	11.3	10.2	4.0	9.9	7.3	5.2	5.5	1.5	3.4	14.1	81.6
25.	White Wyandottes,	7— 9	10.1	15.0	18.5	17.7	13.4	7.8	7.4	6.6	3.0	.5	0	.5	100.5
26.	White Wyandottes,	5— 13	5.0	2.2	11.2	5.8	9.2	9.0	10.0	8.6	4.7	3.6	4.7	9.6	83.6
27.	Buff Wyandottes,	47— 10	6.0	1.9	15.8	14.8	11.0	10.2	13.9	14.8	13.2	14.1	14.2	7.6	137.5
28.	Silver Wyandottes,	15— 13	13.8	15.8	20.0	18.7	21.8	9.5	10.6	6.8	11.1	4.7	1.5	7.5	141.8
29.	White Wonders,	69— 56	9.5	9.2	13.1	9.0	8.3	11.0	4.0	5.0	2.1	1.6	1.7	5.7	80.2
30.	Light Brahmas,	22— 24	6.4	7.5	8.5	12.1	11.0	9.0	6.5	8.5	8.4	12.0	8.7	2.0	100.6
31.	Light Brahmas,	8	0	.9	5.8	15.4	10.0	3.6	7.8	7.7	3.3	1.2	0	.1	55.8
32.	Light Brahmas,	5	0	.6	15.6	14.6	8.2	10.0	11.6	12.0	3.8	6.0	4.6	.9	87.6
33.	Black Langshans,	12	1.2	4.0	14.5	20.7	8.2	5.1	9.2	9.7	7.0	3.5	2.7	3.1	88.9
34.	Brown Leghorns,	265—125	1.8	6.9	14.5	12.8	10.8	10.8	14.0	10.8	10.3	5.9	2.8	4.0	105.4
35.	Brown Leghorns,	15— 20	17.0	19.0	15.0	18.3	15.3	11.0	13.2	9.4	12.3	8.1	6.0	7.1	151.7
36.	Brown Leghorns,	14— 12	7.3	11.7	15.7	16.0	15.5	12.5	10.0	9.3	4.7	.6	0	0	103.3
37.	Brown Leghorns,	12— 10	6.0	16.2	21.1	22.0	25.0	23.2	22.4	14.5	11.1	6.6	3.3	2.1	173.5
38.	Brown Leghorns,	4	6.0	8.2	24.7	27.5	24.7	16.0	12.7	12.0	3.0	1.5	4.5	0	140.8
39.	White Leghorns,	40— 34	6.9	5.5	18.3	20.6	14.0	11.7	6.2	7.0	7.2	3.1	.6	.5	101.6
40.	White Leghorns,	25— 20	4.1	11.7	11.2	16.8	22.0	21.0	18.5	18.5	14.5	4.5	5.0	3.1	150.9
41.	White Leghorns,	23— 22	15.7	10.5	19.5	22.3	20.6	13.3	11.3	12.5	3.7	4.3	5.1	2.2	141.0
42.	White Leghorns,	22— 12	6.0	8.5	19.7	20.5	21.3	20.5	18.7	16.7	12.2	6.0	.4	1.6	152.1
43.	White Leghorns,	18— 11	7.1	11.6	13.3	17.1	14.6	11.6	10.7	10.2	14.7	10.3	9.8	2.6	133.8
44.	White Leghorns,	14— 9	8.3	9.0	14.8	16.4	17.6	11.2	14.5	10.1	7.5	5.2	0	0	114.6
45.	White Leghorns,	12— 10	13.2	14.6	21.3	18.4	17.1	10.8	10.4	14.4	11.9	3.2	.4	5.1	140.8
46.	Dominique Leghorns,	5	8.2	9.8	18.8	17.6	16.2	12.2	15.6	7.6	3.0	5.4	0	0	114.4
47.	Anconas,	3— 12	17.0	7.8	17.0	14.3	16.4	12.0	4.0	3.2	.8	0	1.3	2.5	96.3
48.	Mixed varieties,	177— 35	2.4	6.9	17.0	11.8	15.0	10.0	10.2	9.4	11.0	12.0	5.7	6.3	117.7
49.	Mixed varieties,	150	8.6	10.0	18.8	17.9	16.7	12.1	9.3	6.6	6.1	5.0	3.0	2.3	116.4
50.	Mixed varieties,	100	5.7	10.7	17.3	14.5	14.3	10.6	8.2	2.3	1.1	.6	1.1	2.4	88.8
51.	Mixed varieties,	125—100	3.0	7.3	16.3	17.0	16.7	14.8	12.8	12.2	7.4	2.4	.4	1.5	111.8
52.	Mixed varieties,	64— 62	9.5	14.5	18.2	17.0	13.5	6.5	7.1	5.1	4.9	5.0	4.7	5.3	111.3
53.	Mixed varieties,	30— 12	4.4	5.9	12.5	9.3	9.3	7.9	12.5	7.9	5.0	.7	1.0	1.4	77.8
54.	Mixed varieties,	54— 27	10.7	11.3	18.7	10.5	5.0	14.1	13.3	10.2	9.2	5.0	4.1	3.5	115.6
55.	Mixed varieties,	18— 12	8.6	8.7	17.1	15.7	18.5	16.0	14.2	13.6	10.9	6.0	2.0	4.6	135.9
56.	Mixed varieties,	21— 11	9.3	9.9	16.7	12.2	11.0	14.3	13.5	11.1	8.9	4.7	3.0	3.5	118.1
57.	Mixed varieties,	11— 10	8.2	13.2	16.4	8.5	14.0	22.0	15.7	16.4	8.4	5.2	4.6	3.7	136.3
58.	Mixed varieties,	10— 4	6.4	6.7	16.1	19.6	16.3	14.3	10.9	16.9	19.1	11.4	4.5	3.0	145.7
59.	Mixed varieties,	10— 7	10.2	15.9	20.2	15.4	16.1	14.3	12.1	10.0	4.2	3.2	2.1	.6	124.3
60.	Grade White Leghorns,	20— 10	13.1	6.7	15.0	19.0	18.1	13.1	12.5	13.5	10.6	5.5	.2	.7	128.0
61.	Grade White Wyandottes,	60	5.2	7.2	17.2	12.5	18.5	12.5	12.0	10.6	10.1	3.5	5.0	1.2	115.5
62.	Wyandotte-Brahma cross,	20— 6	10.5	15.0	18.3	15.6	14.7	14.6	15.3	13.6	8.6	5.8	2.1	0	134.1
63.	B. P. Rock-Br. Leghorn cross,	15	5.1	16.0	22.5	16.8	14.4	14.2	15.5	17.0	15.3	8.7	7.6	16.2	169.3
64.	Game-Brahma cross,	15— 12	12.7	10.6	14.0	12.2	13.6	11.2	8.4	11.6	12.9	12.2	8.4	6.3	134.1
65.	Game-Brahma cross,	16— 14	6.5	4.3	10.5	13.4	10.6	10.2	7.5	10.5	6.5	6.5	11.2	6.5	104.2
66.	Mongrels,	60— 32	2.9	6.0	14.2	17.5	17.3	10.9	13.2	12.6	8.0	6.4	1.0	.5	110.5
67.	Mongrels,	46— 37	3.4	5.0	11.1	15.1	17.9	11.4	9.9	1.5	3.8	8.5	4.9	3.5	96.0
68.	Mongrels,	36— 26	3.4	5.9	14.9	18.9	13.2	14.5	11.8	5.5	9.1	8.5	7.9	0	113.6
69.	Mongrels,	20	6.2	7.5	14.3	8.3	9.9	9.5	8.4	4.9	2.9	2.0	3.1	3.5	80.5
70.	Mongrels,	6— 4	2.0	7.9	18.6	15.8	10.8	14.8	13.0	15.3	14.0	11.6	9.2	8.0	141.0
General average B. P. Rocks,			9.5	10.2	17.2	16.0	14.0	11.8	12.4	11.6	9.0	5.3	3.0	3.3	124.9
General average Wh. P. Rocks,			8.4	11.0	16.7	16.5	14.6	13.3	12.1	11.4	9.7	9.7	2.6	1.2	127.9
General average Wh. Wyandottes,			8.6	11.0	15.3	12.1	11.1	10.7	10.2	9.1	6.1	3.7	3.5	6.2	107.7
General average Light Brahmas,			2.1	3.0	10.0	14.0	9.7	7.5	8.6	9.4	7.7	6.4	4.4	.9	81.3
General average Brown Leghorns,			7.6	12.4	18.2	19.3	18.2	14.7	14.4	11.2	8.3	4.5	3.3	2.6	134.9
General average White Leghorns,			8.7	10.2	16.9	18.9	18.2	14.3	12.9	12.8	10.2	5.2	3.0	2.1	133.5
General average mixed varieties,			7.2	10.1	17.1	14.1	13.9	13.1	11.6	10.1	8.0	5.1	3.0	3.2	116.6
General average grades,			9.1	6.9	16.1	15.7	18.3	12.8	12.2	12.0	10.3	4.5	2.6	.9	121.7
General average crosses,			8.7	11.5	16.3	14.5	13.3	12.5	11.7	13.2	10.8	8.3	7.3	7.2	135.4
General average mongrels,			3.8	6.5	14.6	15.1	13.8	12.2	11.3	9.9	7.6	7.4	5.2	3.1	108.3
General average all varieties,			7.9	9.7	16.3	15.5	14.2	10.7	11.6	10.5	8.3	5.5	3.5	3.5	119.0

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WINTER EGGS WINNERS I. K. FELCH & SON,

AT BOSTON

PEN 4. (Maine).—25 B. P. R. pullets, April, '97, hatch; thoroughbreds, "bred for eggs and meat;" home reared. Warm, small house and scratching shed; yard 15 x 50. Dust bath of dry earth, coal ashes, lime, and death to lice, in house. Free range during hot summer months. Morning, mash (2½ quarts), made of 1 part corn meal, 3 parts bran, scalded; cut bone or meat scraps mixed with mash three times per week, other days vegetables; Sheridan's Condition Powder in mash once a week; cabbages, beets, and other vegetables freely; noon, one quart wheat or oats alternately until middle of May, then oats alone for rest of year; night feeding, about 2 quarts of corn daily. Severe weather overtook fowls during moult, laying erratic during last three months of year.

PEN 5. (Massachusetts).—25 B. P. R. pullets, hatched March, '97, bought in September, began laying last of October; reduced to 24 later. House 20 x 10, with scratching shed 10 x 12; yard 15 x 25. Whole grains fed in straw litter in scratching shed; mash with meat and green food fed mornings until June, then fed irregularly either morning or noon, mornings when no mash was given fowls had grain; noon feedings of whole grains, barley, oats, wheat, or corn separately; night, mixed whole grains. Erratic laying during several months occurring at same time or following irregularity in feeding. During colder months severe weather several times followed two to four days later by several days of lessened egg yield.

PEN 6. (Maine).—20 B. P. R., mixed ages; reduced to 8 later. Comfortably housed. Morning, mash of ground grain with bone and meat; noon feeding of lawn clippings the year through, dry in winter, and fresh in summer; nights, wheat, barley, oats, or corn in rotation.

PEN 7. (Connecticut).—15—14 B. P. R. pullets, hatched May and June, '97, began laying in middle of December; good standard stock. Warm house with scratching shed; fair yard. Morning, mash of varied composition, contains besides ground grain, either vegetables, meat, linseed meal, or boiled beans—green food frequently; noons, whole grains with occasional feeding of cut bone, noon feeding dropped altogether latter part of April, and not taken up again until last of November; night, grain, either corn, wheat, oats, buckwheat, or mixed grain. No regular food schedule. Falling off in egg yield following moult in September.

PEN 8. (Michigan).—15—13 B. P. R. March and April, '97, pullets, bred for eggs, home reared. Scratching shed house, roosting room, and shed, each 6 x 8. Muslin shutters for shed in bad weather; window of roosting room of oiled muslin,—no glass; good sized yard. Mornings, grain in litter; noon, mash of equal parts bran, middlings, and ground feed (corn and oats), with meat scraps added twice a week, and linseed meal when moulting; night, variety of grain in rotation. Green food freely. Severe blizzards several times followed by lessened egg yield.

PEN 9. (Connecticut).—12 B. P. R. pullets, hatched May, '97, home reared, "bred for eggs and meat." Comfortable house 8 x 12; yard 12 x 97. Morning, mash of equal parts bran, middlings, ground oats and corn meal, mixed with cooked vegetables or clover rowen, and ¼ lb. meat meal in mash for 12 fowls; noon, cabbage or green vegetables when obtainable; night, mixed oats, wheat, and corn, about 1½ lbs. each feeding.

PEN 10. (Connecticut).—12 B. P. R. hens, hatched April, '96, home reared. Same housing and care as Pen 9.

PEN 11. (Washington).—12—14 B. P. R. hens and pullets, bought stock "job lot from commission house." Scratching shed house, roosting room, and shed, each 6 x 8. Morning, mash of varied composition; noon, variety of grain and some cut bone until April, after that no noon feed, as fowls were too lazy; night, wheat and cracked corn. Green food when obtainable.

PEN 12. (Vermont).—12 B. P. R. April pullets, home bred. House 6 x 11. Mash of table waste and middlings fed mornings; noon, wheat or oats; night, wheat, corn, or oats, mainly wheat.

PEN 13. (New York).—10—6 B. P. R. pullets. Large house, yard 40 x 15. No regular feeding schedule; fed three times a day. Mash of varied composition fed irregularly,

morning, noon, or night. Green food and meat or table scraps often. Laying erratic.

PEN 14. (Georgia).—7—6 B. P. R. pullets, bought stock. House 14 x 12; yard 30 x 60. Food—morning, mash of bran and corn meal, with some meat food, green stuff, or table scraps; cut bone about four times a month; oats, wheat, or corn, for noon and night feedings; mostly two feedings a day—morning mash and mixed grain in early afternoon.

PEN 15. (New Jersey).—24—14 W. P. R. pullets, home bred. House 12 x 7, yard 50 x 75. Morning, mash of bran, shorts, clover, B. B. B. and table scraps, scalded; omitted several times a month, and oats fed; oats at noon; night, mixed grain, two-thirds corn, one-third oats, and sometimes wheat. Green food and waste meat often.

PEN 16. (Massachusetts).—13—12 W. P. R. pullets. Small scratching shed house. Morning, mash; noon, wheat or oats, cut bone often, green food and vegetables; night, corn, oats, or wheat, mixed or in irregular alternation.

PEN 17. (New Jersey).—15—14 W. P. R. pullets, home bred; 7 x 9 pen in large house; run, 7 x 30. Morning, mash of ground oats, bran, hominy meal, rice, linseed meal, and some green stuff and table waste; noon, green stuff, green bone once or twice a week; night, mixed grain, 2 parts wheat, 2 parts oats, 1 part cracked corn, with some millet and split peas. Grain in litter.

PEN 18. (Massachusetts).—45—35 W. W. pullets, mixed ages, home bred. House with scratching shed underneath, small yard. Morning, mash; noon, oats or barley, green food and cut bone often; night, wheat with some oats and corn.

PEN 19. (Connecticut).—40 W. W. June pullets, home bred. Fair house. Fed twice a day, mostly barley or wheat, some oats. In October corn only was fed morning and night.

PEN 20. (Massachusetts).—28—22 W. W. pullets, February, March, and May hatch. Roomy scratching shed house, good yard. Mornings, mash of varying composition; noon, light feeding of variety of grains in rotation; night, grain. Green food and meat food often.

PEN 21. (New York).—15 W. W. May pullets, home bred. Warm house. Morning, mash of ground grains, green stuff and cut bone; noon and night, grain, oats and wheat mainly. Began feeding night mash the last of November.

PEN 22. (Pennsylvania).—12 W. W. April pullets, home bred, pen 8 x 9, yard 8 x 125. Morning, mash, cabbage or vegetables; noon and night, corn or oats and some wheat. Changed to night mash in June. No regular system of feeding.

PEN 23. (Ohio).—12 W. W. February pullets, home bred. Scratching shed house, roosting room and shed each 10 x 12; large yard. Morning, mash of equal parts bran, middlings, oatmeal, and corn meal with meat scraps or vegetables twice a week. Cabbage or vegetables at noon, with grain in litter, cut bone about twice a week; wheat, oats, buckwheat or corn at night, irregularly alternated. Changed to a larger run in May.

PEN 24. (California).—10—8 W. W. pullets, home raised from eggs bought of a fancier in Massachusetts. House 7 x 7, large yard shaded by olive trees. Morning and night feeding of grain; green food or vegetables at noon. Occasional feeding of meat. Began with morning mash in October.

PEN 25. (Massachusetts).—7—9 W. W. pullets, 8 x 10 pen, in large house; small yard, have free range part of year. Morning, mash in winter; mash at night during summer. Green stuff and vegetables at noon. Night or morning when mash not fed, wheat, oats or cracked corn.

PEN 26. (New York).—5—13 W. W., mixed ages, bought stock. Warm house, small yard. Feeding irregular. Mash mornings, green food or vegetables daily. Variety of grain fed in litter two to four times a day.

PEN 27. (Massachusetts).—47—10 B. W. pullets, home bred. Warm house, large yard. Mash mornings; variety of grain for noon and night feedings. Green food, fish, meat or bone frequently.

PEN 28. (Ontario).—15—13 S. L. W., home bred. Warm house, large run. Morning, mash of ground grains, meat food and green stuff; noon feeding of vegetables or green

stuff; with green bone often. Barley, wheat, oats, buckwheat, and some corn alternating at night.

PEN 29. (Connecticut).—69—56 White Wonder, mixed ages. Large house, divided into pens 8 x 10. Feeds once a day only; mainly oats and wheat. Some meat and cut bone about once a week.

PEN 30. (Maine).—22—24 L. B., mixed ages, home bred. Large house and yard. Morning, mash; grain noon and night; noon feed discontinued after June 1.

PEN 31. (New York).—8 L. B., mixed ages. Scratching shed house, small yard. Six of these birds are April pullets, and were allowed to become overfat before they came to laying maturity. Three feedings a day, morning mash; variety of grain and cut bone, meat and green food freely.

PEN 32. (Connecticut).—5 L. B. May and June pullets, about same care as Pen 7.

PEN 33. (Illinois).—12 Black Langshans; 7 are pullets. Small house. Morning, mash; no noon feed; 4 or 5 P. M., cracked corn, wheat screenings or oats; mash, mostly bran and middlings with table waste, and some beef scraps.

PEN 34. (Ohio).—265—125 Brown Leghorns, mixed ages from immature pullets up to 4 year olds. Home bred. Five comfortable houses; free range. Morning, mash until April, with noon feed of barley, and corn at night. Mash begun again in October. April to October fed twice a day barley or corn, or both.

PEN 35. (Massachusetts).—15—20 B. L. pullets. Warm house, small run. Variety of food three times daily. Mash morning or noon, with vegetables and some meat food.

PEN 36. (New Jersey).—14—12 B. L. pullets, 7 x 9 pen in large house; run 7 x 30. Morning, mash; green food and vegetables at noon; mixed grain at night. Grain fed mostly from machine worked by hens jumping on lever; this scatters grain in litter.

PEN 37. (Utah).—12—10 B. L., mixed ages. Roomy cold house, large yard. House has scratching shed, no door in opening between scratching shed and roosting room. All of flock had combs frosted in January. One hen killed by accident in February, and one in May. Variety of food three times a day. Full report of remaining ten birds, with individual records, in February 1st FARM-POULTRY.

PEN 38. (Connecticut).—4 B. L. pullets from prize stock. About same care and feeding as Pen 7.

PEN 39. (Connecticut).—40—34 White Leghorns pullets. House 50 x 10, divided in three pens. Free range. Morning, mash two-thirds corn meal, one-third bran, mixed with milk. Noon feeding, of vegetables and some cut bone, in winter only; no noon feed when on range. Cracked corn at night, occasionally a little wheat added. In May began feeding corn meal mash twice a day; no noon feed, and no grain.

PEN 40. (New Jersey).—25—20 W. L. yearlings, bought in Groton, N. Y. Housed in scratching shed house from F. P. plans. Birds were bought first of January. A number of fowls sick in January, February, and March from exposure during shipment. Morning, mash, with cut bone; green food at noon; mixed grains at night.

PEN 41. (Connecticut).—23—22 W. L. pullets, bought when chicks. About same care as Pen 7.

PEN 42. (Pennsylvania).—22—12 W. L. yearlings, home bred. Scratching shed house, small run. Morning, mash; mixed corn, barley, and oats; wheat in litter at noon; night, mixed grains. Green food freely; cut bone about five times a week, fed mostly in mash.

PEN 43. (Connecticut).—18—11 W. L. pullets, home bred. Comfortable house, large yard. Morning, mash; mixed grain noon and night; meat and green food daily.

PEN 44. (New Jersey).—14—9 W. L. pullets, home bred. About same care and housing as Pen 36.

PEN 45. (Washington).—12—10 W. L. pullets, home bred. Scratching shed house built of rough split lumber, cracks battened. Three feedings daily. Morning, mash of varying composition; rest of day grain in variety. Meat food and green stuff freely.

PEN 46. (New York).—5 D. L. pullets, home bred. Small scratching shed house

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and run. Irregular variety of food, three times daily. Mash fed when convenient, either morning, noon or night.

PEN 47. (New Jersey).—3—12 Aneonas, home bred. About same care and housing as Pen 36.

PEN 48. (Pennsylvania).—177—35 mixed flock, Wyandottes, Minorcas, Leghorns, P. Rocks, and crosses. Fair houses and run. Warm morning mash; noon, green stuff, vegetables, and grain in litter; night, oats, cracked corn, and wheat.

PEN 49. (Pennsylvania).—150 mixed flock, Leghorns, Brahmas, Plymouth Rocks and crosses. Small house, good range. Mash mornings; noon, corn and oats; night, mixed grain.

PEN 50. (Pennsylvania).—100 mixed flock. Same as Pen 49.

PEN 51. (Michigan).—125—100, reported as entire flock. Minorcas, Brahmas, P. Rocks, and Leghorns, housed and handled separately. Run together when not penned for breeding. Comfortable houses. Three daily feedings; variety of food. Mash in morning or at night.

PEN 52. (California).—64—62 mixed flock, Leghorns, Minorcas, Brahmas, and P. Rocks. Comfortably housed. Fed twice a day—morning, mash; mixed grain at night. Green food, table scraps, and cut bone when obtainable.

PEN 53. (New Hampshire).—30—12 mixed flock, mostly B. P. Rocks. Fair house. Three feedings daily—mash or scraps in morning; oats or wheat at noon; boiled oats and corn at night; green bone and green stuff frequently. Fowls probably all overfat and overfed.

PEN 54. (Rhode Island).—54—27 mixed flock. Good house and run. Fed three times daily, a good variety; morning, mash.

PEN 55. (Pennsylvania).—18—12 mixed flock, mostly B. P. Rocks. House 8 x 18; shed 7 x 20. Fed three times a day; morning, mash; noon and night, mixed grains.

PEN 56. (New York).—21—11 mixed flock; all ages. Housed in new scratching shed house from F.-P. plans. Three feedings daily; morning, mash, green food; and variety of grain morning and night.

PEN 57. (New York).—11—10 mixed flock; well housed and cared for. Morning, mash of H-O food and wheat bran, with Sheridan's Condition Powder every other day, and meat scraps. Green food in plenty; some wheat and corn; diet mainly oats; three feedings daily.

PEN 58. (Michigan).—10—4 mixed flock, White Wyandottes and Cochins. Warm house, fair yard. Fed three times daily—morning, mash of equal parts ground oats, corn, bran and table scraps; noon, mainly oats, sometimes other grain; night, variety of grain in irregular alternation. Sickness early part of year.

PEN 59. (Massachusetts).—10—7 mixed flock, all ages. House 6 x 10, small yard. Morning, mash; noon and night, a variety of grains in rotation. Green food and some meat food often.

PEN 60. (Maine).—20—10 grade White Leghorns, home bred. Comfortable house and fair run. Morning, mash, oats in litter at same time; wheat or oats at noon; oats or corn at night. Green food often. Cut bone or some meat food in mash.

PEN 61. (Ohio).—60 grade White Wyandottes, home bred; comfortable house; free range. Fed three times daily—morning, mash four or five times a week, other mornings, grain; wheat or oats at noon; variety of grains in rotation at night. Green food and cut bone about twice a week.

PEN 62. (Massachusetts).—20—6 Wyandotte-Brahma cross, mixed ages; house 12 x 7. Morning, mash; noon, swill; night, mixed grain.

PEN 63. (Vermont).—15 P. Rock-B. Leghorn cross, pullets. Housed in scratching shed house built from F.-P. plans, good run. Morning, mash of equal parts corn meal, ground oats and bran with clover meal, vegetables, and some Sheridan's Condition Powder. Mash scalded, ground bone or meat meal in it about twice a week; mash omitted four or five mornings a week; noon and night, a variety of grains.

PEN 64. (Maine).—15—12 Game-Brahma cross, pullets. Good house and yard. Three daily feedings—morning, mash; variety of

grains in rotation noon and night. Noon feeding omitted in summer.

PEN 65. (Maine).—16—14 Game-Brahma cross, hens. Care and housing same as Pen 64.

PEN 66. (New York).—60—32 mongrel pullets, well housed, free range. No regularity in feeding. Morning, mash in winter; mostly corn at night. Summer, one feed a day, variety of grains in rotation.

PEN 67. (Maine).—46—37 mongrels, all ages. Comfortable house with scratching shed. Morning, mash; corn and oats at night; occasional noon feeding of table scraps. Some cut bone and wheat fed.

PEN 68. (Massachusetts).—36—26 mongrels, mixed ages. Comfortably housed. Morning, mash; corn and oats at noon; mainly corn at night. Green stuff and vegetables, with some meat food frequently.

PEN 69. (Massachusetts).—20 mongrels, mixed ages. Warm house, free range. Morning, mash; oats occasionally at noon; corn at night. Green food three or four times a month.

PEN 70. (Maine).—6—4 mongrel yearlings. Well housed, fair run. Variety of food three times a day—morning, mash.

* * *

How Keeping a Record Has Helped Me.

Experiment Club First Prize Article.

To discuss how keeping a record has helped me in building up a strain of heavy laying, standard bred fowls, will necessarily mean personal experience. A close association with a pen of feathered pets, a careful study of their characteristics, and the love for these pets that such association develops, make the true breeder and fancier desire a comparison of all points, favorable or unfavorable to his particular birds, so that he may know just where he stands as a successful or non-successful breeder and fancier.

Perhaps it is a published record of the number of eggs laid by a flock of fowls, and the average number of eggs per hen, that sets one to thinking hard. Then there is the desire to have our own pets equal or surpass the printed record. Then there is the determination that they shall surpass that record. Now begins the real work both for head and hands. They must be properly housed, properly cared for, and properly fed. This requires a close study of food values in relation to breed and surroundings.

Now there is the selection of birds for what I may call the test pen, and the trial is on. Of course it is to be a flock record this first year. If the breeder is a determined fellow who is bound to stay until a good measure of success is his, his way is a long one, with plenty of rocky places in the road. If he is easily discouraged, a few months or a year convinces him that the "other fellow" had either a wonderful flock of birds or a remarkable command of language when he wrote about them. But the man who is determined to stay; how about him? He has always considered that he had the best. Say his first year's record is an average of one hundred and forty-five eggs per hen with a non-sitting breed. Whew! He feels like some one had thrown ice water down his back, so surprised he is dazed, then he begins to study the matter in all its phases. His thoughts run something like this: "It don't seem possible. I know *certain hens* surely laid more than that." You see he has some hens that are especially well known; he has noticed them on the nests in winter; in summer, noticed that they laid late into their moult. The comforting thought comes that "they did their duty," and like a revelation another thought: "*the others kept the average down.*"

Then a long vista of new plans open up before him; he will breed only from the ones that do their duty. "That is easy." So he begins the second year. Results are better; but there is convincing evidence to the close observer that he has overlooked a few, and is still hatching chicks from the eggs of drones that lay well during the breeding season only. The natural deduction is that he must know what each breeding bird does each day of the year. How can he do it? Well, he must. I will skip over the many plans tried, and only say that a trap nest was contrived, "an invention born of necessity." Now the way seemed open for rapid advancement and ultimate success.

The result of the first year's use of the trap nest is probably the greatest surprise of all. Records range from one hundred and forty-five to over two hundred eggs per hen. As suspected, here is the secret; the record proves that the drones lay well during the breeding season only, and have been perpetuated the same as have the heavy layers. The logical conclusion is, breed only from the heavy layers—and here I have learned a lesson, and can give some good advice. If you have reached this point, start several families instead of one, then you will be independent of the trials incident to securing new blood of pedigreed laying stock, and at the same time getting blood that will "notch in" with your own strain and make good standard birds.

You start with your best layers, and have the pedigree of every hen, and *know the male* you are going to use is from a heavy laying hen—you have the pedigree. Now your lessons come thick and fast, continually learning some things that are of much importance that you never paid any attention to before—unlearning some things that you thought were vital principles. That is the way I found it for four years, and I see no reason why a man should not learn something every day that he is trying to do intelligent breeding. I assure you that the combination of egg production at its best with a proper regard for maintaining standard requirements provides a large field of interesting study and experiment. One of the first lessons is that every pullet from a two hundred egg hen is not a two hundred egg pullet, not by a good long ways no more than every chick from a 96 point hen is a 96 point chick. More reasoning—the drone blood still shows; they must have bred back, etc.

The fact is that the "laying habit" must be bred in the strain, and bred strong—just as white ear lobes, clear face, stripe in hackle or saddle, or any other distinctive feature. Right here one would be discouraged if they did not know that some strains are always strong in some particular point. For illustration (I used it at this stage in my reasoning), my birds always come with good earlobes, hackles and saddles—that is, they are so strongly bred on these lines that they are fixed; i. e., there are very, very few culls on account of weakness in these points. This was attained by a long line of breeding from birds strong in these points. The application:—if I continue to breed only from my best layers, will not the "laying habit" become fixed? and will not each succeeding generation show a larger percentage of heavy layers and a smaller percentage of drones? I may say emphatically that such has been my experience.

Now another thing learned by actual experience. You may find one year, and that after several years work, that no pullet reaches the best average of the previous season. Do not be discouraged. *The blood is there*, and the next generation produces a two hundred and fifty-seven egg pullet and a two hundred and forty-nine egg pullet. Now there is a definite start, a positive result to work from. Careful records of eggs laid. Careful keeping of pedigrees, and no attempt to breed numbers beyond the capacity of the plant—and I should say, in the light of past experience, that continued success is assured.

I have tried to give my experience in the same way I gained it, necessarily skipping over the many troubles and disappointments that came at various times. I believe that the man who would make rapid progress must not only keep a record, but must keep an individual record; must adopt a system that makes all his "I thinks" absolute facts. I found out, among other things, when I began to keep individual records, that I had previously credited many a hen, *on appearances*, with heavy laying that had not been a heavy layer. The red comb and sprightly appearance are oftentimes deceiving, and it is the modest biddy without her Sunday clothes on that is actually doing the work. That may be "rank heresy," but it is a fact.

I learned that a lousy hen will not lay many eggs;—that Leghorns during heavy laying must be well fed, and that at such time will not become overfat. I learned from experience that a hen that had been sick enough to be doctored, or had been overfat, nearly always transmitted some weakness to her chicks; hence I do not use such hens for breeding. I

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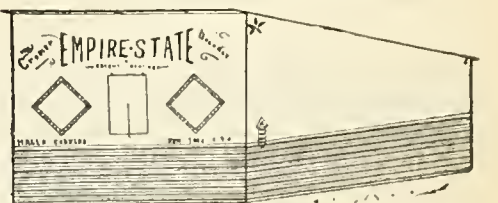
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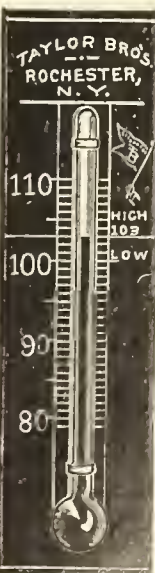
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have learned that a hen will sometimes just quit laying without any apparent cause (of course there is one, but it is not apparent), and they will start up again just as unexpectedly. I have learned that the simplest house, with the least fancy fixings on the inside, is the best. Have learned to consider a sheltered scratching place open to sun and air as indispensable. I have learned that appetite is the only weight or measure to be considered in feeding. Have learned that regularity in care and time of feeding is of great importance; continually frightening or exciting the fowls costs in the egg yield.

I have learned that if you breed from good heavy laying Leghorns you get standard shape naturally. I have learned that there are some good things to remember in nearly every article published in the poultry papers throughout the country; that these articles mostly represent somebody's experience. I am not so skeptical about some things I read in the poultry papers now as I was before I kept careful records. I have learned that keeping individual records keeps a breeder posted on the condition of his hens, a strong point in favor of his keeping them at least in his best pens. I have learned, and that was an early lesson, that it takes a year's record (and several years is better) to tell the story of success or failure, profit or loss.

I know that if I had given up a good position to go on a poultry farm several years ago I would have been a rank failure. Since that time I have learned that hens bred for eggs may be made to pay a net profit of \$2.50 each per year. I also learned, long ago, that FARM-POULTRY is carefully edited, and that it is conducted in line with the true interests of both the utility breeder and the fancier.

Ogden, Utah. M. J. HEWITT.

Time Should Be Considered.

Mr. Editor:—To a novice who has the chicken fever, and who contemplates going into the business, the articles by H. A. J. and J. H. S., in January 15th number, are worth more than a year's subscription to FARM-POULTRY. Both sides of the business are ably brought out. I am glad to see H. A. J. mention the subject of time spent in regard to raising chickens. It is all very nice to read about Mr. So-and-So clearing \$1.50 each on fifteen hens. The novice will take his pencil and figure—500 hens, \$1.50 each, \$750. Mr. So-and-So don't figure time in his expense account; that part of the work is gratis. The novice will find that to raise enough chickens to supply him with five hundred pullets each year will keep him busy; in addition he will have to attend to his five hundred laying hens, market their eggs—and many other things which will keep him busy from morning until night. There are times when the raising of chickens is very discouraging, and if a person hasn't considerable love for the work they are liable to quit in disgust. In conclusion, I will send in my returns for '98. Started the year with seven Black Minorcas, thirteen Brown Leghorns, and five common hens—twenty-five in all, and two cockerels. I don't want to forget them, as they are half of the flock. They laid 3,207 eggs, or 268 dozen. Eggs averaged fifteen cents a dozen here this year. Receipts for eggs, \$40.20. Killed twelve cockerels for eating, \$4.80. Raised six pullets, \$6—total, \$51. Expenses for feed, \$20.45; extras, \$5.40—total, \$25.85. Profit, \$25.15. Time, gratis. J. J. L.

Elmwood Place, Ohio.

The Prize Awards for Best Records.

There was hot competition in the contest for best sets of twelve complete monthly records for the year ending December 31, 1898. Prizes were awarded for neatness and completeness of reports, and judgment in making notes under "Remarks," without reference to egg yield. Of the seventy complete sets of reports the majority were well kept. After careful examination and comparison of each set of reports, the prizes were awarded as follows: (Each member, eligible for a prize, was required to furnish a sworn statement, made before a notary, that his report is true and accurate).

First prize, \$5 and notary's fee, Charles E. Lord, Newton, Mass.

Second prize, \$3 and notary's fee, Daniel D. Sherman, So. Nyack, N. Y.

Third prize, \$2 and notary's fee, Mrs. Leonard Johnson, Radnor, Pa.

Some Individual Hen Egg Records for 1898.

Hen No.	1	2	3	4	5	6	7	8	9	10	11
Eggs.	Eggs.	Eggs.	Eggs.	Eggs.	Eggs.	Eggs.	Eggs.	Eggs.	Eggs.	Eggs.	Eggs.
January,	20	0	5	25	15	9	0	13			
February,	4	7	21	20	9	21	13	21			
March,	24	29	3	16	20	13	21	0			
April,	0	1	0	0	29	25	21	0			
May,	0	3	22	4	31	25	19	21			
June,	21	25	23	23	27	24	17	18			
July,	16	15	14	16	20	24	10	16			
August,	18	22	20	17	27	20	18	12			
September,	3	17	13	3	20	7	0	12			
October,	0	0	13	0	19	0	0	5			
November,	9	0	17	0	3	0	0	0			
December,	14	0	13	0	0	0	0	0			
Year's record,	129	119	164	124	220	168	119	118			

Some Individual Hen Egg Records for 1898.

No. 1—is a White Wyandotte. She became broody February 1st; broken up, began laying again February 24th. Broody again April 1st; was set, and with chicks through April and May. Began laying again June 4th. Broody again June 24th; began laying again June 26th. Broody again July 10th; began laying again July 20th. Broody again August 10th; began laying again August 21st. Sick September 9th; began to moult latter part of month; no eggs until November 17th.

No. 2—is a White Wyandotte; had laid from Nov. 3 to Dec. 27, '97, and was moulting in Jan., '98. Broody April 2d, set; with chicks April and May; laying May 29th. Broody June 28th, laying July 5th. Broody July 20th, laying on 30th. Broody August 12th, laying on 20th. Broody September 4th, laying on 7th. Broody September 26th, and stopped laying for the year.

No. 3—is a White Wyandotte; had laid from Nov. 3d to Dec. 29th, '97, and was moulting in January, '98. Broody March 5th, set; with chicks through April; laying May 6th. Broody May 28th, laying on 30th. Broody July 2d, laying on 7th. Broody July 20th, laying on 30th. Broody August 11th, laying on 20th. Broody August 30th, laying on September 7th. Broody September 27th, laying on October 14th.

No. 4—is a White Wyandotte. Broody March 21st, set; with chicks through April; laying May 28th. Broody June 19th, laying on 24th. Broody July 11th, laying on 24th. Broody August 8th, laying on 20th. Broody September 6th; began moulting latter part of month, and stopped laying for remainder of year.

No. 6—is a small stub-combed black mongrel. In April, May, and June, she made a record for continuous laying by laying every day for sixty-five successive days. Began moulting November 7th, and stopped laying for the year.

No. 9—is a mongrel. Was idle for fifteen days in middle of March. Moulting September 11th; no eggs for rest of year.

No. 10—is a mongrel. Broody April 28th, laying May 6th. Broody June 30th, laying July 10th. Broody July 22d, laying on 31st. Broody August 30th. Moulting in September, and through laying for year.

No. 11—is a mongrel. Broody March 1st, set; with chicks through April; began laying again May 5th. Broody June 19th, laying on 26th. Broody July 6th, laying on 16th. Broody August 25th, laying on September 9th. Broody Oct. 9th, and stopped laying for the year.

The White Wyandottes were hatched April 14, 1897; the mongrels April 3d. House 8x10, dry, and wind tight. Yard 12x75. Plenty of pure fresh water in clean stone crocks, emptied nightly. Grit, shells, and charcoal always within reach of fowls. Quarters cleaned weekly. Time for care of fowls and house, less than three hours a week.

Food:—morning, mash, made of equal parts table scraps, H-O food, and wheat bran, to which every other day is added one small scoop (I. S. J. & Co.'s) Sheridan's Condition Powder, and one gill of meat scraps. Mash is made one-fourth steeped cut clover, and mixed with the liquor. Noon—green foods; wheat or oats in scratching litter, sometimes varied with a little corn. Night feeding mainly best heavy clipped oats, with frequent addition of corn—about two-thirds oats to one-third corn.

It is interesting to note the frequent attacks of broodiness of some of these birds. Although allowed to "rest" by hatching and rearing their chicks, they were not con-

tent, and again became broody several times through the summer.

Oats formed the staple grain of the ration, and it is a good argument in favor of oats as a poultry food, that these birds have egg records above the average of pens reported to the club.

The average per hen for the year in this pen is 145 eggs.

The Best Articles.

All members sending reports for nine consecutive months were eligible to contest for the prizes awarded for best article on "How Keeping a Record Has Helped Me." Only four articles were sent in. Of these one was disqualified because it did not have anything to say on the subject of the article; it was an interesting bit of "hen gossip," well written, but had nothing in it about the help of record keeping. Prizes were awarded as follows:

First prize, \$12, M. J. Hewitt, Ogden, Utah. Second prize, \$8, J. H. Charde, Bradford, Mass.

Third prize, \$5, W. J. Gordon, Pickering, Ontario, Canada.

The first prize article appears in this number.

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JOHNSON'S ANODYNE LINIMENT

All who use it are amazed at its power and are loud in its praise ever after.

It will cure every ache, every lameness, every soreness, everywhere; either Internal or External. It produces a permanent increase of vital activity in the parts, and by its electric energy excites the organs to more vigorous exertion, thus giving them the power to throw off, prevent and cure disease. There is not a medicine in use today which possesses the confidence of the public to so great an extent. The best evidence of its extraordinary value is the fact that in the state where it was originated more than eighty years ago it is still the leading family medicine. The sale there is steadily increasing. Its special province is the treatment of inflammation. Inflammation is an unsound condition of any part of the body, manifested outwardly by redness, swelling and heat; inwardly by congestion of the blood vessels and growth of unsound tissue, causing irritation, pain and disease. A majority of the diseases of mankind begin with or are accompanied by inflammation. It is unequalled. It is the best. It is the oldest.

It is the original. It is unlike any other. It is superior to all others. It is the great vital and muscle nerve. It is for Internal as much as External use. It is used and fully endorsed by all athletes. It is a soothing, healing, penetrating Anodyne. It is what every mother should have in the house. It is loved by suffering children when dropped on sugar. It is safe, soothing, satisfying, so say sick, sensitive sufferers. It is used and recommended by many physicians everywhere. It is the Universal Household Remedy from infancy to old age. It is safe to trust that which has satisfied generation after generation. It is made from the favorite prescription of a good old family physician. It is marvellous how many ailments it will quickly relieve, heal and cure. It is more than eighty years since it was originated. In all that time it has stood upon its own intrinsic worth, merit and excellence. Do not forget the very important and useful fact that it is strictly for family use. Every mother should always have it in the house, to relieve and cure the many common ills which will occur in every family as long as life has woes. For croup, colds, coughs, cramps and pain, it is the sovereign cure; always ready to use.

SAFE SOOTHING SATISFYING So Say Sick SENSITIVE SUFFERERS Go Tell EVERY MOTHER

It's Unlike Any Other

Our Book on INFLAMMATION mailed free. The Doctor's signature and directions on every bottle. Sold by all Druggists. Price, 35 cents. Six bottles, \$2.00. **I. S. JOHNSON & CO., 22 Custom House St., Boston, Mass.**

Account With a Pen of Crosse's.

Year's account of a Lynn member. Fowls kept were White Wyandotte-Brahma cross. Average number of fowls per month for year, 17; began the year with 20.

	Dr.	Cr.
January.—Bought food,	\$6.30	
17 dozen eggs sold,		\$5.61
February.—Bought food,	.43	
25 dozen eggs sold,		6.75
March.—Bought food,	2.95	
31 dozen eggs sold,		6.51
April.—Bought food,	.20	
19 dozen eggs sold,		3.42
May.—Bought food,	3.14	
23 dozen eggs sold,		3.14
June.—Bought food,	.75	
23 dozen eggs sold,		4.60
July.—Bought food,	3.37	
24 dozen eggs sold,		5.76
August.—Bought food,	3.75	
22 dozen eggs sold,		5.72
September.—Bought food,	2.90	
14 dozen eggs sold,		4.06
poultry sold,		.50
October.—Bought food,	1.20	
10 dozen eggs sold,		3.30
poultry sold,		.50
November.—Bought food,	3.72	
1 dozen eggs sold,		.35
poultry sold,		5.60
December.—Bought food,	.58	
poultry sold,		4.25
Totals,	\$29.29	\$60.07
Value of stock Jan. 1, '98,	21.00	
Interest on cost of house,	2.50	
Value of stock Jan. 1, '99,		16.00
Year's profits,	23.28	
	\$76.07	\$76.07
Profit per hen, \$1.37.		

Green Geese.

A subscriber inquires "whether there is any regular and constant demand in the New York market for green geese, also for old birds at paying prices." I interviewed one of the largest handlers of dressed poultry in West Washington market, and gathered much goose information. Green geese are also called Boston geese, not because they all come from that city, but because they resemble in style of carcass and dressing, the geese from that locality that established a reputation years ago. The geese most wanted are young, not much if any over six months old. "Old birds" are uncertain quantities, and probable prices are equally uncertain; they are not wanted unless because they are cheap. The Boston geese are usually dressed with the tail and wing feathers left on, and a ruff around the neck. Large quantities come from eastern Massachusetts and Rhode Island; a great many come, also, from Pennsylvania and Maryland, and perhaps from further away. Great quantities of live geese are received here from the west, but I shall have more to say of these later. The demand for geese is not constant, although there is a limited demand the year around; the greatest numbers are called for during the winter, especially at the holiday season. To bring good prices, they must be young, fat, well dressed, and put up in attractive shape. The name Boston is simply a trademark. There hasn't been such a glut in the goose market this season as in that for ducks.—*Rural New Yorker.*

Linseed Meal.

Linseed meal is an excellent food for winter, but cottonseed meal is not so desirable for poultry. If linseed meal is used do not give it as a daily ration, but as a change. Three times a week is sufficient, and a gill for a dozen hens, mixed with the ground food, is ample. It can be used every day if the hens are not in good condition, but it gives the best results when not fed so frequently. It is a wholesome and harmless food, and will do more than its share in the promotion of laying.—*Maine Farmer.*

No eggs are quite so fresh and nice as those produced by one's own hens. A few can be kept to furnish the family supply with little actual expense for labor and food. If the fowls are of some choice favorite breed the pleasure of keeping them will be increased.—*Mass. Ploughman.*

The Gloucester Show.

The sixth annual exhibition of the Cape Ann Poultry Association was held in the Gloucester City Hall, January 24—26. Attendance was very good, and many good birds were shown. Coming as it did at the close of the New England show season, many exhibitors were unable to attend owing to their birds being too tired to stand another show successfully.

The middle of the hall was devoted to a line of display coops, in which were Rhode Island Reds, White Plymouth Rocks, Black Langshans, Light Brahmas, and a tank cage with Pekin ducks. On the top of the R. I. Red cage was an attractive display of nice brown eggs laid by R. I. Red pullets.

A Prairie State Incubator, in charge of Mr. H. P. Lane, was busy shelling out chicks. The Universal incubators and brooders, and the Homer City incubators and brooders were exhibited by local agents. The American Cereal Co. had a nice display of poultry foods, and Albert Dodge and L. E. Smith, local dealers in poultry supplies, had samples of their wares attractively displayed.

The society cup for largest number of birds scoring above 85 points, was won by Mr. H. P. Lane. Cash premium for highest scoring bird in the show was divided between Mr. R. R. Hamilton and Mr. John Rogers.

Besides the large number of fowls shown there were about five hundred pigeons, and above one hundred bantams on exhibition.

The awards were:—

BARRED PLYMOUTH ROCKS.—W. F. Spry, Manchester, 1 (92) ck; 1 (92½), 2 (tie) pul.; 3 pen. W. R. Cheeves, Bay View, 1 (91½) ck; 1 (183) pen. J. B. Pickett, Wenham Depot, 2 (tie) ckl. S. Harvey, Gloucester, 2 (tie), 3 ckl; 2 (tie), 3 pul.; 2 pen. C. H. Smith, Rochester, N. H., 2 (tie) ckl.

WHITE PLYMOUTH ROCKS.—L. Friend, Gloucester, 1 (92½) ck; 1 (95) hen; 3 pul.; 2 pen. O. Gowen, West Newbury, 1 (94) ck; 2 pul.; 1 (187) pen. A. P. Lufkin, Gloucester, 2 ck. Geo. McDonald, Gloucester, 2, 3 hen; 2 ckl; 3 pen. David Glover, Bay View, 1 (95) pul.; 3 ckl.

BUFF PLYMOUTH ROCKS.—C. F. Pulsifer, Gloucester, 1 (91) ck; 2 pul.; 2 pen. A. H. Marchant, Gloucester, 2, 3 ckl; 1 (90 tie), 3 pul.; 1 (180) pen. F. Woodbury, 2d, Beverly, 1 (tie) pul.; 3 pen.

SILVER WYANDOTTES.—All to A. E. Presson, Gloucester.

GOLDEN WYANDOTTES.—All to J. Sann-ders, Lanesville.

BUFF WYANDOTTES.—Dr. A. H. Pierce, W. Newbury, 1 (90) ck; 1 (91), 2, 3 pul.; 1 (179½) pen. Marebant, 3 ckl.

WHITE WYANDOTTES.—W. B. Hodgkins, Rockport, 1 (90½) ck; 1, 2 hen; 3 pen. Pulsifer, 1 (93), 3 (tie) ckl; 2 (tie), 3 pul.; 2 pen. Pickett, 2 ckl; 1 (95), 2 (tie) pul.; 1 (186½) pen. W. H. Ryder, 3 (tie) ckl.

AMERICAN DOMINIQUE.—All to G. Parsons & Co., Gloucester.

LIGHT BRAHMAS.—A. Dewart, Gloucester, 1 (91½) ck; 1 (93½) hen; 3 (tie) ckl; 2 pen. Alice Elliot, Peabody, 1 (93 tie) ckl. O. Caswell, Beverly, 1 (tie) ckl; 1 (94½), 2, 3 pul.; 1 (186½) pen. A. P. Lufkin, 2, 3 hen. Ryder, 2 ckl; 3 pen. W. Greely, Newburyport, 3 (tie) ckl.

BUFF COCHINS.—All to A. C. Rogers, Gloucester.

BLACK LANGSHANS.—Loring Cook, Gloucester, 1 (92½) ck; 2, 3 ckl; 1 (95), 2, 3 hen; 1 (94½), 2, 3 pul.; 1 (188½), 2 pen. J. Tufts, Rockport, 1 (94) ckl.

WHITE LEGHORNS.—Arthur Elliot, Peabody, 1 (94) ck; 3 hen; 1 (94½ tie) ckl; 2, 3 pul. John Rogers, Gloucester, 2 (tie) ckl; 1 (95½) hen; 1 (tie) ckl; 1 (188½), 2 pen. R. R. Hamilton, Peabody, 2 (tie) ck; 2 hen; 1 (95½) pul. H. Numan, Gloucester, 2 ckl. G. L. Geibel, Danbury, Conn., 3 ckl. H. P. Lane, Gloucester, 3 pen.

BROWN LEGHORNS.—H. D. Brown, Gloucester, 1 (94) ck; 1 (94), 2, 3 pul. Gowen, 2 ck; 2 hen. A. J. Tucker, Gloucester, 1 (92½), 3 hen.

BUFF LEGHORNS.—Marebant, 1 (91½) ckl; 1 (90½), 3 pul.; 1 (182) pen. G. R. Parsons, Gloucester, 1 (91½), 2 hen; 2 pul.; 2 pen.

BLACK MINORCAS.—A. P. Lufkin, 1 (92½) ck; 1 (90½ tie), 2, 3 ckl; 1 (93½ tie), 2, 3 hen; 1 (93), 2, 3 pul. E. S. Lufkin, Gloucester, 1 (tie) ckl. H. P. Lane, 1 (tie) hen.

WHITE MINORCAS.—All to S. Brooks, Gloucester.

RED CAPS.—All to C. Harvey, Lanesville.

GOLDEN POLISH.—All to W. W. McIntire, Melrose.

CORNISH INDIAN GAMES.—All to Lane.

SHERWOODS.—All to O. E. Earle, Gloucester.

RHODE ISLAND REDS.—All to Lane.

PEKIN DUCKS.—W. H. Friend, Gloucester, 1, 2 pair old; 1, 2 pair young. H. G. Chase, West Newbury, 3 pair old; 3 pair young.

THREE HAPPY WOMEN.

Each Relieved of Periodic Pain and Backache. A Trio of Fervent Letters.



Before using Lydia E. Pinkham's Vegetable Compound, my health was gradually being undermined. I suffered untold agony from painful menstruation, backache, pain on top of my head and ovarian trouble. I concluded to try Mrs. Pinkham's Compound, and found that it was all any woman needs who suffers with painful monthly periods. It entirely cured me.—Mrs. GEORGE WASS, 923 Bank St., Cincinnati, O.

menstrua more than little book house, and some of Lydia Liver Pills. I a new woman; past. I shall for what it has 363 Lisbon St.

For years I had suffered with painful menstruation every month. At the beginning of it was impossible for me to stand up for five minutes. I felt so miserable. One day a of Mrs. Pinkham's was thrown into my I sat right down and read it. I then got E. Pinkham's Vegetable Compound and can heartily say that to-day I feel like my monthly suffering is a thing of the always praise the Vegetable Compound done for me.—Mrs. MARGARET ANDERSON, Lewiston, Me.

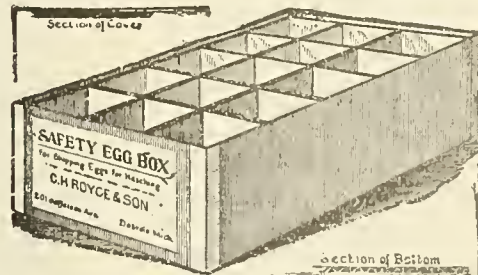
Lydia E. Pinkham's Vegetable Compound has cured me of painful menstruation and backache. The pain in my back was dreadful, and the agony I suffered during menstruation nearly drove me wild.

Now this is all over, thanks to Mrs. Pinkham's medicine and advice.—Mrs. CARRIE V. WILLIAMS, South Mills, N. C.

The great volume of testimony proves conclusively that Lydia E. Pinkham's Vegetable Compound is a safe, sure and almost infallible remedy in cases of irregularity, suppressed, excessive or painful monthly periods.

"The present Mrs. Pinkham's experience in treating female ills is unparalleled, for years she worked side by side with Mrs. Lydia E. Pinkham, and for sometime past has had sole charge of the correspondence department of her great business, treating by letter as many as a hundred thousand ailing women during a single year."

Lydia E. Pinkham's Vegetable Compound; A Woman's Remedy for Woman's Ills



A TRIAL will Convince the Most Skeptical that our **SAFETY EGG BOX**

is the best package ever devised for shipping of eggs for hatching. Box and cover padded with corrugated paper packing, partitions constructed of same material, forming a box strong enough to bear the weight of a man; each egg is protected by a soft yielding substance, a safeguard against breakage. Packing and shipping consists simply in placing eggs in compartments, tying and addressing.

Price per doz. Boxes, f. o. b. Detroit, 12-egg \$1; 15-egg \$1.20; 30-egg \$2; 40-egg \$2.50. Highest testimonials. Circular cheerfully furnished. Manufactured by C. H. ROYCE & SON, 201 Jefferson Avenue, Detroit, Mich.

MANN'S GREEN BONE CUTTERS

Make a complete success of the poultry industry. They take cheap green bones and convert them into the most valuable poultry food. Green Cut Bone doubles the eggs produced. It is rich in all the elements contained in eggs. Our Cutters run easy, cut fast and fine and last for years.

Mann's Clover is a strong durable machine that cuts rapidly and easily all kinds of hay, clover, etc., dry or green. The single knife is easy to keep in order. No danger to hands or fingers in feeding. One turn of the wheel makes 12 cuts—four times as fast as others. Made with or without stand. Price, \$8, and \$10.

Mann's Swinging Feed Tray saves its price in feed in a short time. Hens can't scratch feed out of it or dirt into it and can not wallow in it or roost upon it. ALL IRON—INDESTRUCTIBLE, LASTS ALWAYS.

Mann's Granite Grit is the sharpest and hardest grit known, and is absolutely clean, free from all dust, sand etc. It is better and cheaper than oyster shell. Cuts and grinds the hardest foods, inducing perfect digestion. Cash or installments. Illustrated catalogue free.

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MANN'S GRANITE CRISTAL GRIT

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WARM FOOD AIDS DIGESTION

Investigation shows nine-tenths of the disease stock is heir to arises from indigestion. Cooked food is easily digested, and therefore a preventive of disease.

It is not easy to cook food and heat water the old way, but a

Reliable Food Cooker

MAKES IT EASY.

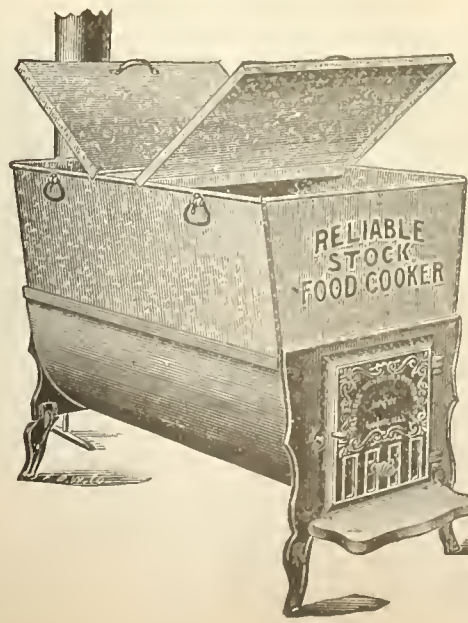
They are built for service, of the best material, and sold cheaper than any cooker on the market. Compare its advantages with other makes in placing your order. Our prices are:

20 gallon size, for wood only, \$5.00

50 gallon size, burns wood or coal, 12.00

100 gallon size, burns wood or coal, 16.00

RELIABLE INCUBATOR & BROODER CO.,
BOX A, 170, QUINCY, ILL.



FARM-POULTRY

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EDITORIAL.

Let Us Have Facts.

In the January 15th number of FARM-POULTRY, under the heading, "We Are Disappointed," we told of the failure of the *Reliable Poultry Journal* to see the error of its ways and retract the false charge it had made against us of "swiping" the Norwegian Poultry Farm article, which appeared in FARM-POULTRY for September 15th last, and said:—

In his November number he flatly accuses us of theft, says we "swiped" the *R. P. J.*'s interesting and valuable matter, also its compliments, and when we have exposed his misstatements and misrepresentations, by showing him that the article (and compliment) he accuses us of "swiping" was sent to us, cuts and all, by the Reliable Incubator Co., and was published by us as a reading notice, at their request, why does he not right this great wrong? Why does he calmly "pass by on the other side," instead of standing up, "man-fashion," acknowledging that he did wrong, and apologizing to both his readers and FARM-POULTRY?

That he wronged both his readers and FARM-POULTRY, he is intelligent enough to see. Misstatements and misrepresentations are a *wrong* to the readers of his paper, and he owes it to his own self-respect, as well as to the respect of his readers, to right the wrong to us and put himself in the right attitude to them.

That the misstatements were the result of hasty spleen, and not "thinking twice," (which a man in his responsible position ought to do), is probable. Had he stopped for that second thought he would have recalled the careful, painstaking work done in editing F.-P., and the pains taken to credit every line of matter borrowed from contemporaries, he would have seen at once that it was quite impossible that FARM-POULTRY should have "swiped" (his word) an article, cuts and all. Only a "low-down" would do that, and the abundant compliments the *R. P. J.* editor has paid F.-P. in the past show that he knows we are not a "low-down," at least not in "swiping" (his word) articles, cuts and all;—we may do foolish things, but we are not quite so foolish as that.

We still trust that the editor of the *R. P. J.*

will do the manly thing, will withdraw his false accusations as to FARM-POULTRY, and apologize to us and to his readers.

In a coarse and vulgar article entitled, "Wants the Other Barrel," in February *Reliable Poultry Journal*, the editor of that paper piles up more errors (besides reiterating the former ones), and says: "It is in evidence, and the evidence is indisputable, that FARM-POULTRY attempted to put up a job on its readers that was well calculated to deceive them," and calls upon the editor of this paper to "apologize to the *Reliable Poultry Journal* for having reprinted an article which was written for *R. P. J.* (italics ours) and published by it at a previous date (showing credit due), which FARM-POULTRY did not credit to *R. P. J.*, as it should have done."

"Oh! What a tangled web we weave,
When first we practice to deceive!"

It is about time for some facts, and we will quote from an authority whom possibly editor Curtis will not care to "call down."

We have before us a letter from the Reliable Incubator and Brooder Co., of Quincy, Ill., dated Aug. 17, 1898, and signed by J. W. Myers, pres't. Mark the date of this letter; it is quite two weeks (fourteen days) prior to the date of publishing the September number of the *R. P. J.*, in which the Norwegian Poultry Farm article first appeared. After some introductory paragraphs, which are irrelevant to this case, the letter reads:—

"Others have had considerable notices in FARM-POULTRY, and we would like to know if you will publish and insert in some future issue of FARM-POULTRY the article and cuts of the Paradise Poultry Farm, of Stavanger, Norway, same as inclosed herewith, and make the article read, 'Written for FARM-POULTRY,' and if you desire, we will send you the original article as received by us from Gabriel Persen."

Doesn't that letter clearly establish our claim that the article and cuts were sent to us by the Reliable Incubator Co., and published by us as a reading notice for that company? Could there be clearer proof of the truth of our statement? Where, then, must we place editor Curtis' claim that the article was written for his paper, and "swiped" by us without due credit? Is it not a bare-faced falsehood?

The article was written for and was the property of the Reliable Incubator Co., was offered by them to the *R. P. J.*, and printed in that paper; was offered by them to and printed in this paper, and we can furnish proof (if needed) that it was offered to another paper, *The Feather*, Washington, D. C., namely, and would have been published by that paper had not Editor Curtis begun his cry of "stop thief!"

It is well to note, too, that it was the Reliable Incubator Co.'s suggestion that the heading be changed to "Written for FARM-POULTRY," and that suggested change is in the letter of Aug. 17th, two weeks before the article appeared in print at all.

Where, now, is your claim of ownership, Mr. *R. P. J.*? Where, now, is your charge that we "swiped" your article, and neglected to give due credit?

Did you ever read the ninth commandment? You will find it in the 16th verse of the 20th chapter of Exodus, and it reads:—

"THOU SHALT NOT BEAR FALSE WITNESS AGAINST THY NEIGHBOR."

—And you have broken that Divine law!

Doesn't Know Boston.

The *Kansas City Times* for January 27th, commenting upon the poultry show there, just closed, says:—

"It was the poorest the local fanciers have yet given. It was a success, but it was not in the same class with the same exhibitions of other years, when Kansas City was able to boast that in number of entries and quality of birds, its show was second only to that given at Madison Square Garden, New York, of all the chicken shows in the United States,—and the New York show is rivaled by but one other in the world, that held in London."

It is sad to see that our Kansas City contemporary "knows not Boston," and perhaps has never heard of that little village. Be that as it may, Boston has taken first place in America as a show city, and has put up a poultry and pigeon show that has in the four past years outclassed New York, both in number and quality of exhibits. And this isn't "wind," like some of the boastings that come to us out of the west; it is solid fact.

Our Kansas City friend had better "come down to Bosting!"

The Experiment Club.

We call the attention of our readers this month to the annual report of the Experiment Club. We give a table of average monthly and year egg yield of each hen in every pen reported for the full twelve months ending December 31, 1898. Seventy pens, ranging from five to over two hundred hens each, were so reported, and that makes a pretty good first year's showing. Many persons who never before kept records of their poultry, have been induced to keep a careful account of their flocks, and so made a good long stride in the right direction. It has placed them on a more intimate footing with their flocks, shown up the good and the bad in their methods, and caused them to give their fowls more attention than would have been given if records had not been kept. It has proved to those keeping the records that record keeping for flocks pays, and to many that individual record keeping, at least for the breeding pens, will pay better.

The table and accompanying "key" will furnish food for thought for those who study it. Some varieties have not a fair representation, some are not represented at all, and some of those represented by several pens did not make a showing equal to what we have reason to consider the capability of the variety, but in most cases the "key" to the table indicates the reason why. Some pens were purely fancy stock, and as such were not expected to make much of a showing as egg producers; some were not properly handled to get eggs, and their owners realize this sufficiently to adopt better methods for the new year. It is gratifying to note that thoroughbreds as egg producers take the lead.

The table, notwithstanding that some varieties are not fairly represented, and some not at all, probably gives a more fair showing of the egg producing ability of the "general run" of poultry than any table ever before published. It gives the records of seventy pens of fowls of varying age and condition, and cared for in a variety of ways. Such a set of records can only be obtained through means like those adopted by the Experiment Club. If we had conducted an egg contest we would have had one side only; those making the poorer records would have dropped out, and we would have had only the reports of the best flocks. As it is, we have the good and the bad, and have every reason to believe that the reports are truthful and accurate, since our prizes were awarded for neatness, completeness, and judgment in making the reports, without regard to egg yield.

Some pens made a very good showing. In pens averaging above one hundred and fifty eggs each hen, some of the hens must be remarkably good layers, hens that will touch the two hundred egg mark or better. It is noteworthy that our utility varieties show some pens that contain these good layers.

The personnel of the club is most gratifying to us. We have reason to be proud of it; practical poultrymen, fanciers, farmers, physicians, lawyers, clergymen, merchants, clerks, and mechanics, and their wives and daughters, are all represented. All say the club has been a help; most think so much of us that they will continue with us for the new year; and all unite in pronouncing it the best enterprise ever entered upon by any poultry paper up to date.

The club has had a successful year; it has published much valuable information, and we hope that in the future club members will continue to benefit themselves much by exchanging experiences through the club columns. The coming year promises well; nearly every mail brings applications for membership from everywhere—poultry lovers who wish to join the club for the benefits of the exchange of experiences, although they may not compete for the prizes, not having begun the club year with us.

All are welcome. The club is open to all. We do not intend to sit still and hug ourselves because of one successful year; we want to go on and do better. Every reader of FARM-POULTRY, who raises even a few ducks, if they do not find it convenient to keep our regular records, can at least keep a hatching record. Send for blanks, keep a record, and return it to us when the season is over.

The Experiment Club is a good thing—help push it along.

Editor Drevenstedt on the Boston Show.

The largest show of poultry, pigeons, pet stock, incubators, dressed poultry, eggs, etc., ever held in America, happened January 17 to 21, at Boston, Mass. This is no "idle dream" or vaporized newspaper talk. 'Tis a fact.

We have attended many shows in the past decade, and managed to see all the big ones, but we never saw a show managed with better business acumen than the recent one at the Hub. The triumvirate, Sharp, Baylies and Weld know how to secure results, artistically and financially. They were ably seconded by T. Farrar Rackham, who worked hard to secure entries and make the show a credit to the management, himself, and Spratts Patent.

If we have any fault to find, it is this: The entries were too local, or, in other words, too much confined to New England. There was not the representation from other states there should have been, although New York, New Jersey and Maryland were quite well represented.

Such a show as Boston deserves national recognition. It is true that the entry fee of two dollars for each bird is a high one, but the honors won are equally high and far reaching.

It is not our desire to dwell on some of the circumstances that have alienated fanciers and exhibitors in other states; it is sufficient to state that at Boston, this year, the treatment accorded to exhibitors was thoroughly fancier like, and teemed with good fellowship.

It is our frank and unbiased opinion that the Boston management outdid itself, and set a model and made a standard that all great shows must follow in the future.—*American Fancier.*

A Few Compliments.

It Leads Them All.

I take a number of poultry papers, but FARM-POULTRY leads them all when it comes to practical information. I. N. C.

Montezuma, Iowa.

Interesting and Useful.

I am very much pleased with your paper, and find it very interesting and useful. It is just what a farmer requires. W. A.

Houw Holk, Cape Town, So. Africa.

Can't Do Without It.

It would almost be impossible to do without FARM-POULTRY. Might as well stop raising poultry. G. R.

Glen Gardner, N. J.

Gets Information.

I have taken FARM-POULTRY for one year, and have received much valuable information from it, and should not want to be without it. Needham, Mass. C. H. S.

Read With Pleasure.

Your paper is subscribed for by a member of my family, and read with pleasure by all, and profit to those who take an interest in the hens. J. W. K.

So. Eliot, Me.

Is the Best.

I have bought several copies of FARM-POULTRY, and have read them with a great deal of pleasure. I think it is the best poultry paper I ever saw, and enclose, etc. Woosocket, R. I. A. E. S.

Enjoys Reading It.

I am not an old experienced hand in the poultry business, but have enjoyed reading FARM-POULTRY during the last three years. So. Dennis, Mass. E. A. O'B.

Cannot Raise Chickens Without It.

I have been getting FARM-POULTRY from my newsdealer of late, but as soon as I am settled again will renew my subscription to your valuable paper. I cannot raise chickens without it. Mrs. A. C. M.

Dallas, Texas.

Is a Great Help.

Mr. Editor: Dear Sir.—In renewing my subscription, I wish to say I consider your paper one of the greatest helps a poultry raiser can have. I frequently find myself discouraged by all one has to contend with in the business; but half an hour with one of your papers inspires me with fresh enthusiasm and energy. Mrs. V.

Palatine, Ill.

ANSWERS TO CORRESPONDENTS.

Correspondents who enclose stamps for reply receive immediate answers by mail. When no stamps are enclosed questions which are of general interest and have not recently appeared here are printed with answers in this department. Several correspondents sometimes write at about the same time to ask the same question. Of course only one inquiry is printed. Look for the answer to your question, not for your initials and residence.

Questions Briefly Answered.

[Any of the numbers of FARM-POULTRY referred to below, will be supplied at the rate of five cents each].

SCALY LEG.—(A. J. A., Luzerne, Pa.): You will find the scaly leg mite illustrated and described, and remedy given, on page 127, April 1st, '98, F.-P.

TESTING EGGS.—(Mrs. F. J. S., Monterey, Ind.): Eggs cannot be tested to tell if fertile until they have been incubated four to six days. Anyone claiming to be able to test eggs before being incubated, is a fraud. See "A Remarkable Claim," page 203, June 1st, '98, F.-P.

BEST HOUSE PLANS.—(F. W. G., Bristol, R. I.): You will find the best poultry house plans in June 15th, '98, F.-P. That scratching shed house is endorsed by many users, and is (as there given) the fruit of many years observation and experience.

A BIG EGG.—(T. W., Methuen, Mass.): That was a big egg, and the perfect egg inside the big shell is rather unusual; but we have heard of such cases. Under the heading, "A Monster Egg," page 124, May, 1890 F.-P., is the account of such an egg that measured 10½ inches in circumference lengthwise, 8 inches around the center, and weighed eight ounces. "Within the shell was another egg, perfect in all ways, and measuring 6½ x 6 inches, and two double yolked eggs besides."

Wants a Home Made Incubator.

Mr. Editor:—I would like to ask if some of your readers could give a plan and description of a home made incubator of about fifty eggs size, through the columns of your paper—as I feel sure there are many who would be interested in it. Also how to run it, and how warm to keep the eggs. T. A. A.
Newburyport, Mass.

We have given in the past plans of home made incubators, but not for some years, for the reason that ninety-nine out of a hundred home made incubators are a delusion and a snare. There are several standard makes of incubators on the market, and first class incubators can be bought at prices so reasonable, quality, etc., considered, that we believe we are doing our readers a favor in recommending them to buy a standard make of incubator of a reliable manufacturer, rather than waste time and spoil several dollars worth of eggs in "monkeying" with a home made one.

You could easily be fifty dollars worth of material, time, and eggs out of pocket, and waste a whole hatching season in useless experiments—where if you buy a good incubator (and you can buy one at a reasonable price), you have got something you can depend upon, with full directions for setting up and operating it, and if you apply common sense methods, you can hatch chickens with it.

An incubator is a delicate piece of mechanism, and in a home made one it is quite possible to get something slightly wrong in the adjustment, or in the regulator, or something, and botch the whole business. The standard makes of incubators are the result of much experiment, and a careful adjusting of means to ends, and are remarkably successful in their work.

Do not waste time building a home made incubator.

Hatching from Pullets' Eggs.

Mr. Editor:—Would you advise using the first litter of eggs which a pullet lays for hatching? If not, why not? She is mated to a two year old cock that is strong and vigorous. C. H.

Fast Haven, Conn.

It is generally conceded that the first eggs which pullets lay are small, and, as a consequence, the chicks hatched from them will be small and indifferent. We know of no other good reason for not hatching from pullets' eggs. If you want to raise chickens for the market, and the eggs are of a fairly good size, would certainly hatch from them.

Insurance and Incubators.

Mr. Editor:—I saw an article in the *Rural New Yorker*, concerning incubators and insurance, and stating that insurance companies refuse to insure buildings if incubators are run in them. One man claims that he has a loss every time he insures a building that has an incubator run in it. Do you think it is dangerous to run an incubator in a dwelling house cellar? Have you ever heard of any fire caused by an incubator run in any building?

Elmegrove, W. Va.

C. E.

No, we never heard of an authentic case of fire caused by an incubator, and we do not believe there is any more danger of fire from an incubator lamp than there is from any other coal oil lamp which is burned night and day. Most coal oil lamps are burned for an hour or two, or three, and then are done with; while incubator lamps are burned night and day continuously for three weeks.

It is not a question of whether we believe an incubator is dangerous, but what insurance men believe,—and insurance men insist upon claiming incubators as dangerous risks, and until that absurd prejudice is removed they will refuse to insure buildings in which incubators are operated.

Wry Neck.

Mr. Editor:—I have a White Wyandotte pullet that I noticed about three weeks ago, carried her head sideways, as though blind in one eye, and thought that after she had gone to roost I would examine her and see, but did not. In a day or two I found her with her head so twisted that the bill stuck nearly

straight up, and since then she has carried her head sideways till night; when it twists clear round again. Her appetite is good, and she sings round quite cheerfully, but has never laid, although rather more than six months old.

I have taken her from the flock and put her by herself, as I do not know what troubles her, and think it safest to remove all sick ones at once. She is a beauty, weighing some five and one-half or six pounds. Can you tell me what is the trouble?

Feed wheat in five or six inches of oat straw mornings; corn in the same way at noon; and at 4 P. M. hot mash, two parts corn meal, two parts flour middlings, two parts quaker oat meal, one part boiled beef and bone. Grit and oyster shells constantly where they can get them, and occasionally a cabbage hung up for them to peek at. Have twenty-four pullets and a cockerel in a pen 12 x 20. Please prescribe for my sick biddy. Sunapee, N. H.

C. F. B.

[The trouble is torticollis, or wry neck. It is the result of some morbid condition of the nerves or nerve cells. Causes, unsanitary surroundings, injury, constitutional taint, or from fowl being out of condition. It is doubtful if a permanent cure can be effected; such cases, even though they apparently recover, often relapse. We should not waste time and money in attempting treatment, since the best and cheapest way out of it is to use the axe.

If you want to try to cure her, the best

treatment is to keep her by herself in good clean, warm, dry quarters. Do not allow her to roost. Feed plenty (not too much) of nourishing food and green stuff. Allow some exercise in the sunshine and fresh air. For medicine, after feeding, give a one-two-hundredth of a grain tablet of strychnia sulph., three times a day for several weeks. — Ed.]

To Teach Laying in Nest.

Mr. Editor:—On page 32, in January 15th FARM-POULTRY, there is a statement that a Sherborn, Mass., breeder, has a P. Rock pullet that would rather lay her eggs on the floor than in the nest. One of our pullets had the same failing. We made a small coop out of an old dry goods box, in one end of which we made a nice open nest. We put six china eggs in the nest, and then put the pullet in the box. That was Dec. 2, '98. Dec. 3d and 4th she deposited her egg as usual on the floor. On the 5th she did not lay. On the 6th and 7th she laid in the nest. On the 8th we turned her out with the other fowls, and she has been laying in the nest box ever since.

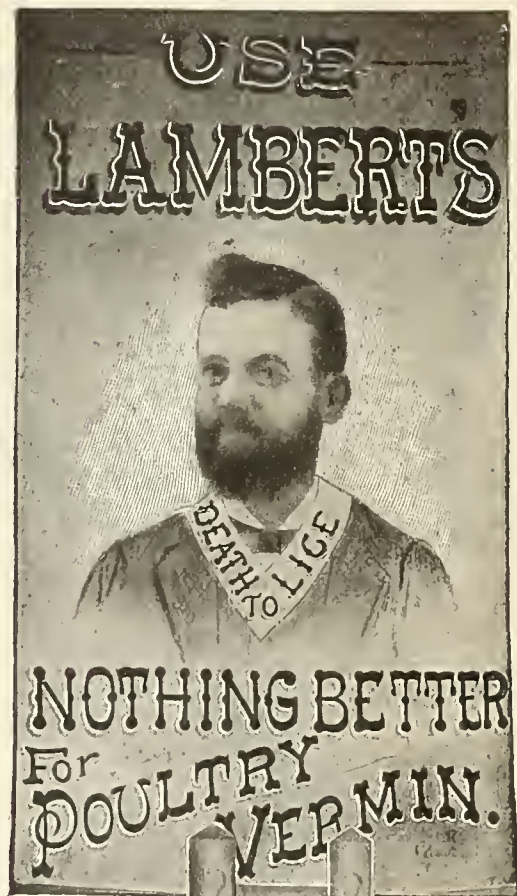
Hoping that our method will cure the P. Rock pullet. Yours resp.,

Stanton, Va.

HAINES BROS.

P. S. — We have just received our second number of FARM-POULTRY, and think it is the best all around poultry journal we ever saw.

YOUR BEST MATINGS



Ought to receive the best of care. It is most important to dust them frequently with Lambert's Death to Lice to cause them to do their level best. It matters not how nice they are, or how many prizes they have won, they will be *nicer*, cleaner, healthier, and more profitable when free from vermin. Don't make the common mistake, and think your birds are not lousy. Look among their fluffy feathers and see what you see.

Fertile Eggs

Are always desired from breeding pens. These are the product of vigorous stock. Lice weaken a bird and subtract strength and vitality that should go into eggs. A quarter, or even a dime, spent for Death to Lice *now* would pay you many times over if it only saves you one choice egg, and the one fine chicken. The best breeders assure you that a liberal use of Lambert's will result in

Stronger Chickens

Than any other one thing you can do in your poultry yard. You should know, also, that Death to Lice Powder is one of the greatest remedies ever invented for vermin on sitting hens. It positively will not injure the hen, eggs, or little chickens; should they hatch in it; and the beauty of it all you can put it on the hen at any time during incubation; and if before the lice take possession it will keep the nest clean, sweet and comfortable.

This 1899

Is to be the best chicken year on record. If you fail to make money, it will be your own fault; you are not doing your best, and you know it. Before you are satisfied try

Death to Lice Powder

For dusting fowls and sitters, 5 oz. sample, 10c. post-paid; 48 oz., 50c.; 16 oz., \$1. by express from here or nearest agency.

Death to Lice Ointment

For head lice on chickens or children, also scaly shanks on fowls, 10 and 25c., postpaid.

Death to Lice Special

For making a liquid lice or mite killer, 4 oz., 10c.; 16 oz., 40c., postpaid.

Agents' Outfit, \$3. Books, Circulars, and Full Particulars, FREE.

ADDRESS,

D. J. LAMBERT, Box 800, **Apponaug, R. I.**

A Farm of Five Acres.

Mr. Editor:—Can a young man of ability, who has studied F.-P. and had some experience with poultry, both fancy and practical, keep five hundred practical hens on five acres; grow the green foods, and have one acre as cow pasture? A. S. C., Philadelphia, Pa.

Much depends upon the man. He would want a little more than one acre for houses and yards, building these after plans in June 15th, '98, F.-P. Then one acre for cow pasture would leave a fraction less than three acres for growing green foods and to raise the young stock upon.

A man can do it all right if he has got sand in him, and common sense. We infer that the question covers also the growing of the chicks to replace the laying stock. Probably the best plan would be to replace about half the laying stock each year, keeping over the best half of the year old birds the first season, and later raising about three hundred good pullets to take the place of the two year olds sent to market, and some of the poorer of the year olds also. If judgment is used, this would not be a difficult problem. The male birds hatched with the pullets should be kept in small pens until of broiler size, and then marketed, so as to give the best possible chance to the growing pullets to range and grow. By high feeding, good pullets will be mature and laying by October, then, if handled rightly, will pay good dividends through the winter. Does your plan contemplate using the acre reserved for the cow as pasture simply, or provide food for a cow? An acre of ground will support a cow if rightly handled, as you can easily learn if you read up on the soiling system. If you use the acre as pasture it would only support the cow for about a half a year.

An Old, Old Question.

Mr. Editor:—Kindly inform me from your valuable paper, FARM-POULTRY, as to the extent of the influence of a sitting hen of one breed upon the eggs of another breed she is sitting on. A. B., Cohoes, N. Y.

A comprehensive answer would be that she imparts about 103° of heat, and if the eggs are fertile, she produces chicks in twenty to twenty-one days. This, however, is not the meaning of the question, which, as a matter of fact, does not need to be asked at all, if one will only use his think-box. For example: if I put hens' eggs under a turkey, as is sometimes done, what is the result? Does the turkey hen hatch young turkeys? If I put ducks' eggs under a hen doesn't the hen hatch ducks? Our young man found a partridge's nest in the woods, and brought home half a dozen eggs, which were put under a broody hen. Do you for a moment suppose anything but young partridges were hatched?

Look at the question in another way. If you put eggs in an incubator, what influence does the incubator have other than to supply the necessary temperature to develop the embryo? All that a hen sitting on eggs does is to incubate them; that is, she supplies the necessary 103° of heat.

A Cross for Broilers.

Mr. Editor:—What breeds are the best layers? White Plymouth Rock females crossed by Game cocks give the best production in shape of broilers, superior in flavor to any other class. Do they attain much size compared with the straight Plymouth Rocks?

I am a contemplated beginner, and want to get the theory first from some of those who have practical knowledge—that is, those who have gone over the ground. W. L. L., Pell City, Ala.

Leghorns and Minorcas are generally esteemed the greatest layers; but of late years Plymouth Rocks and Wyandottes, "bred for layers," have quite equaled the Leghorn-Minorca record, and as they are most excellent as poultry, they are becoming very popular.

Undoubtedly the Game-White P. Rock cross would produce broilers, and roasters also, of exceptionally good flavor, but would that pay commercially? Broilers are generally sold upon their good looks rather than flavor. Of course, if one was raising them for his own table, he could ignore the commercial question; but if raising them for market with a view to profits, a quicker maturing, better appearing broiler would produce a better price, and for that purpose either Rocks or Dottes straight, or the same crossed, would be better. Then, too, the pullets raised would mature quicker, and lay better, hence pay better profit. The

Game cross, while making exceedingly fine flesh, is very slow maturing, and the mature females are sluggish layers; and, generally speaking, it is wiser to consider the several sides of the profit question than broilers only.

Vertigo.

Mr. Editor:—I am having a peculiar trouble with my hens this winter. I have about ninety, nearly all pullets, separated in three flocks; one flock Leghorns, the other two mixture. In each of these two flocks there are a few black pullets supposed to be Leghorn-P. Rock cross, but they are not much larger than Leghorns. The fowls are mostly in good health, and have been laying some all winter, and gaining steadily for last few weeks.

A few days ago I noticed the first indication of trouble. I found one of the black pullets on the floor of hen house, nearly helpless, eyes closed, and trembling all over. A day or two later found a hen in the other flock in about the same condition (the houses are half a mile apart). I placed them in a coop by themselves, and they now appear all right. As they were running with P. Rock males I thought that the trouble might be due to the heavy males, so took them away. Last night I found another in same condition. At dark she was helpless, and I left her on the platform under the roosts. This morning she was with the others and apparently all right. They look healthy, plumage bright, and combs red. Have been fed bran, middlings, corn meal, cracked corn, oats, India wheat, and smoked wheat, cabbages and some cooked vegetables. Have oyster shell and clean water always. Pens are littered with hay. Have had hens lose use of legs, but this is different. That comes on more gradually, and lasts a long time, and usually kills them.

How about that smoked wheat? It is sold as good wheat injured by fire in elevators, but our market is always supplied, and I think it must be inferior stuff that has been "doctored" to make it sell better. This I have smells very strong of smoke, but many of the kernels appear plump and full. S. C., Hardwick, Vt.

[The trouble is vertigo caused by brain disturbance, secondary to some disorder of digestion, or the result of fright. In the case of your fowls, look for digestive disturbance. That smoked wheat is poor stuff, and dear food at any price. The fact that it has a strong smoky (creosote) odor, proves that it is not a good food. We do not take any stock in its being "doctored," but it has probably been through fire and smoky water.

Give sick birds each a half teaspoonful of castor oil. Stop feeding damaged wheat, and feed less corn for a while, and you will come out all right.—ED.]

FORTY-ONE PRIZES

FOR

DAVIS'

Blue Barred Plym. Rocks

AT TWO SHOWS.

At Amesbury, Mass., Dec. 1-3, '97, I. K. Felch, judge, my birds won 1st (94) and 2d (93) cock's; 2d pullet (93 1-2) (same score as 1st prize); 2d hen (93); 3d cock; 1st and 2d pen; (Grand sweepstakes for best cock, 2 cockerels, 2 hens and 5 pullets), the Silver Cup Trophy for best display, and 9 specials, in close competition, with 143 birds in the class.

At Haverhill, Mass., Dec. 27-30, '98, my birds won 1st, 3d, and 4th cockerels; 1st, 2d, and 3d pullets; 1st, 2d, and 3d hens; 2d and 3d cocks; 1 and 2 pens; the GRAND SWEEPSTAKES for the best cock, 2 cock's; 2 hens and 5 pullets. The SILVER CUP for finest display, and EIGHT SPECIALS.

I won three times as many prizes as all my competitors combined.

My strain of P. Rocks are noted for their light blue barring, rich yellow legs and beaks, low combs, fine symmetry, and are excellent layers of brown eggs. Send for my circular giving a full description of my matings for 1899 and my show record.

from my prize matings, \$3 per 13; \$5 per 26; \$7 per 40. Good hatch guaranteed. A very low price by the 100 during Feb. Write for it. W. B. DAVIS, Care Merrimack Nat. Bank, Haverhill, Mass.

Barred
Plymouth
Rocks

Prize winners at Madison Square Garden, Rochester, and Syracuse, 100 choice cockerels for sale. Eggs from twenty grand yards. Write for circular and list of matings.

M. S. GARDNER,

Box A, Philadelphia, Jefferson Co., N. Y.

BREEDERS AND MARKETMEN.

OUR REQUESTS:—We make two requests of our subscribers. One is when writing our Advertising patrons always mention FARM-POULTRY. Another is if you ask them questions, always inclose a stamp. If you observe both of these requests it will benefit you amazingly. It shows that you mean business. Remember, "Molasses will catch more flies than vinegar," and those who observe it are served first.

A BAD WICK is worse than none. Use only the Sunlight Carbon Wick, 19 cents for sample. S. G. Robinson, printer F.-P., 29 Purchase St., Boston.

A BARGAIN, W. Leghorns, Lt. Brahmas, Prize winners at Boston show. First, two specials, V. H. C. Eggs. C. B. Travis, Brighton, Mass.

A. P. ALLEN, Westerville, Pa., (formerly Meadville), has S. C. W. Leghorns and Lt. Brahmas that are well bred. Eggs, \$1 per 13; \$2.50 per 40; cock's and pullets to spare.

AT BOSTON, Jan., '99, my Barred Rocks won 4th cock's; refused \$30 for him while on exhibition. Do you want eggs same blood? 1 sit, \$2; 3 sits, \$5. Also cockerels for sale. F. A. Quimby, East Rochester, N. H.

BUFF P. Rocks and Buff Wyandottes; 32 prizes won '97 and '98, in Rochester, Amesbury, Haverhill, and Beverly. Eggs, \$2 per 13. W. E. Blaisdell, E. Rochester, N. H.

C. S. CULLUM, Meadville, Pa., has Pekin ducks, W. Cochins, S. S. Hamburgs and other varieties. Fowls for sale at all times, and eggs in season.

EGGS—Bar'd Rock, W. Wy., and S. C. W. Leg., laying str's. The Van Dusen Nurseries, Geneva, N. Y.

FARM raised stock, W. P. R. W. W., and W. L. 15 eggs \$1. White. Miss Pinsent, Nyack, N. Y.

FOR SALE, 20 good Buff Leghorn yearling hens, \$1 each. Geo. A. Hurlbert, Cuyler, N. Y.

GOLDEN, Silver and Buff W'dts. Never had better stock for sale. Some especially fine cock's. Have not shown this season. Last I did with score as high as 94. Lambert, judge. 10 White Wyandotte pullets and cockerel to close at \$15. F. S. Tenney, Peterboro, N. H.

HOUDANS, No stock. Eggs in season. A. W. Tyler, 79 Andover St., Peabody, Mass.

IF YOU are looking for birds that combine show qualities and utility, try my S. C. W. Leghorns. They have won their share of prizes at the leading shows for years. At Boston, '99, on 2 entries won 2d hen, 2d cockerel. Eggs, \$1.50 sit, \$2.25 2 sit, \$3 3 sit, \$8 per 100. C. H. Annable, Danvers, Mass.

JODREY'S Silver Laced Wyandottes. Boston and Madison Sq., N. Y., in Jan. and Feb., '99, testify to their quality. At Boston, cocks, 3 and 4; hens, 1 and 3; cockerels, 4 and 5; pullets, 2 and 3; pen, 2; special for best cock and ten hens. N. Y. cocks, 1; hens, 1 and 3; cockerels, 5; pullets, 2, 3 and 4, no pen entered. This after selling the winners in many leading shows. Only a few females for sale. Eggs for hatching. John C. Jodrey, Danvers, Mass.

KNIGHT'S R. C. Brown Leghorns won at Boston 1st on pullet, 4th on cockerel, with only two entries. Cockerels, trios and pens for sale. Eggs from best pen, \$2 per 13; incubator eggs, \$5 per 100. Geo. A. Knight, Peabody, Mass.

ONE hundred Bronze turkeys, one hundred Pekin ducks. Mrs. Chas. Jones, Paw Paw, Ill.

ROSE C. B. LEGHORNS specialty 12 years. Circular free. J. L. Randolph, Bartlett, Ohio.

ROSE COMB Black Minorca cock's, fine birds, \$2 to \$3 each. Geo. A. Hurlbert, Cuyler, N. Y.

SIX W. P. ROCK pullets for \$10, or \$2 each. They are good birds. Also B. P. Rock and S. C. Leghorn pullets, \$2 each; or 7 for \$10. Eggs for hatching from practical stock, \$2 sitting. Frank A. D. Bullard, Segreanet, Mass.

WHITE Wyandottes exclusively. Early prolific laying strain, dark brown eggs, bred for practical purposes. Eggs 13, \$1; incubator eggs, \$4 per 100. Stock in season. P. D. White, No. Attleboro, Mass.

WHITE Wyandottes, prolific layers of large brown eggs. W. E. Mack, Woodstock, Vt.

WH. WYAND. W. F. Stroud, Merchantville, N. J.

WHITE WYANDOTTE and White P. Rock cockerels, yearling hens and pullets, \$1.25 to \$3 each. Geo. A. Hurlbert, Cuyler, N. Y.

W. WYAN'S exclu. Farm raised, brown egg strain. Stock and eggs. Victor D. Fraser, Woodstock, Vt.

WHITE Wyand., br. egg str.; great layers; farm raised, \$1 a sit. G. P. Holmes, So. Walpole, Mass.

WHITE WYAN. Large dark egg laying strain. W. E. Smith, So. Natick, Mass.

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BRAHMAS.

BUFF Brahmas, originated by me, and bred since '86. Dark Brahmas, Buff and White Cochins Bantams have won many prizes; stock and eggs in season. W. C. Fuller, Westwood, Mass.

FARM BRED stock, large and vigorous, bred for utility. Eggs, \$5 per 100. A few nice pullets for sale, \$1 each. Geo. Howard, Easton, Mass.

A FEW choice Light Brahma cockerels, \$5 to \$5 each. L. T. Smith, West Brookfield, Mass.

CHOICE Lt. Brah., Felch and Rollins. Eggs \$1.13; 6 sit's, \$5. M. Herman Kent, Marshfield, Mass.

MANMOUTH LT. BRAH'S exclusively. Eggs for hatching the year round 15-21; 50-53; 100-55. Andrew M. Gallagher, Box 317, Norristown, Pa.

BREEDING STOCK.

1776 Farm, Warner, N. H. Br. egg prolific laying standard W. Wy., Bar. P. Rocks, Lt. Brahms, C. I. Games. Large farm raised stock \$1 to \$2.

S. C. B. LEGHORNS, Buff P. Rocks; great show record; fine specimens of both varieties; prices right; free circular; old and tried reliable breeder. Geo. H. Gallinger, Fabins, N. Y.

PEKIN DUCKS, R. C. B. Leghorns, and B. P. Rock cock's. V. Chase & Son, Reading, Mass.

NOW READY, a few cockerels in silver Wyandotte and Black Langs. Prolific laying str's. Standard bred, \$2 and \$3 each. H. Cotterill, Westfield, N. J.

2 W. P. ROCK COCKS, 25 cockerels, 35 good breeding hens, 5 W. Wonder hens, 1 cockerel, 8 nice Wyandotte cockerels, Gerry B. Lawrence, Ashby, Mass. Canal Poultry Yards.

BUFF Wyandotte and Buff Cochins cockerels, eggs \$1.50 per 15. I. S. Sammis, Huntington, N. Y.

BUFF AND WHITE P. Rock cock's \$1.50. Bl. Minorca, Buff and White Leghorns, \$1. Pullets same price. L. Brown, Sturbridge, Mass.

COUNTY Blue Poultry Farm breeds prize winning White and Barred Rocks, Light Brahmas, Pekin and Rouen ducks and Toulouse geese. Stock for sale. Circular free. A. G. Barlow, Millers, N. Y.

S. C. W. Leghorns (Knapp-Wyckoff); W. Wyand. (Hawkins). Also W. Holland Turkeys. None better, low as good. Stock. Eggs, \$1.50 per sitting. Robert A. Haswell, Hoosick Falls, N. Y.

90 Var. poultry, eggs, pigeons and German Nat'l Col. 60 page book, 10c. J. A. Bergey, Telford, Pa.

IF YOU want some nice S. C. Brown Leghorns or Barred Rocks, I can please you. C. Hartman, Ware, Mass.

BUFF Leghorn and Buff P. R. cockerels, \$1.50 to \$5 each. Eggs, \$1 per 13; \$6 per 100. Winter laying stock. New Plymouth incubator 300-egg, price \$30, cost \$65. John H. Hellerman, Doylestown, Pa.

DO YOU want W. Wyand. bred for business? Pullets and cock's \$1 to \$3. Extra fine W. H. turkeys, \$5 per trio. S. C. B. Leg. cock's bred from winners and layers, 75c. ea. W. V. Ransom, Hiram, N. Y.

BLACK Langshans (Dr. Robinson's); W. Wyandottes (Mack's). Good birds, \$2. Eggs \$1 per 13; \$2 per 30. Henry Mansfield, Rockland, Mass.

CLOVER HAY.

CLOVER, cut ready for use, \$2 per 100 lbs. Woodlud Farm, Station V., Philadelphia, Pa.

CUT CLOVER IN SACKS, \$1.25 per 100 lbs. L. G. Quirin, Tioga Center, N. Y.

CLOVER, cut or ground, well cured, \$2 per 100 lbs. Newark Poultry Supply Co., Newark, N. J.

COCHINS.

BUFF Cochins, Oakland farm strain. Choice young stock. C. J. L. Ware, S. Keene, N. H.

BUFF Cochins Bantams and White Wyandottes. Eggs from prize winning stock \$1 per sitting. Cockerels for sale. L. G. Bantman, Rockport, Mass.

FOUR Black Cochins Bantam hens. Won at Boston, '98; also Buffs. E. C. Fenn, Ware, Mass.

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ALL-WOOD shipping. Exhibition Coops. Price list free. C. H. Canfield, 7 Main St., Bath, N. Y.

CUT CLOVER.

SECOND crop cut clover 75c. per hundred, for 100 or one ton. Order at once, cash with order. W. H. Weaver, Wilson, N. Y.

DUCKS.

MANMOUTH deep keeled first prize Pekins. Second to none. Eggs, \$1.50 per doz.; \$8 per 100. Book orders early. H. G. Worth, Nantucket, Mass.

RANKIN and Pollard's k Pekins, \$1 ea. Toulouse geese, \$2 ea. C. L. McFerrin, Darlington, O.

PEKIN Ducks, Rankin strain, 10 ducks, 1 drake, \$1 each. Almon Lane, Shawmut, Mass.

EGGS.

50 C. per doz.; \$3.50 per 100. Wyckoff strain White Leg. eggs. Cir. free. S. J. Bishop, Chesire, Ct.

EGGS, B. and W. P. Rocks, Lt. Brahmas, White Leghorns, P. Ducks. C. B. Huff, Delaware, N. J.

WHITE Wy., extra dark egg str., bred for eggs, \$1 per sit. Wm. C. Raymond, Bridgewater, Vt.

WH. WYAN, eggs and stock. Hawkins, Duston strain. Write me. W. B. Ganiard, Delta, O.

INCUBATOR eggs.—P. Rocks, R. I. Reds, etc., \$5.50 per 100. Belmont Farm, Fall River, Mass.

WHITE Wyandottes and S. C. Brown Leghorns, bred for business as well as beauty. In 1888 showed 31 birds and won 37 prizes, including specials. Stock for sale. Eggs \$1.50 per 15; \$3 per 35; cir. free. F. W. Calvin, Washingtonville, O.

EGGS for hatching. Thompson's 200-egg strain of W. Wyandotte and W. P. Rocks. Will please broiler men as others; 300 fine yearling birds mated for business. Write me for particulars. Frederick B. Thompson, Peterboro, N. H.

WYANDOTTES, Sil., Col. Bl., Wh. eggs 15, \$1.50; 40, \$3; for Inc., 100, \$4. From selected heavy layers of leading str's. Hawkins, Hunter, Tarbox, Mattison, Keller, in Dec. got 450 eggs. Cock's of above stock \$2 to \$4; extra value. S. B. Patton, Box 125, New Castle, Pa.

EGGS that will hatch, best strains White Wyandottes, Single Comb White Leghorns, 15, \$1.50; 100, \$5. W. E. Shoemaker, Laceyville, Pa.

MILLVIEW Poultry Farm. White P. Rocks, Barred P. Rocks, White Wyandottes, Silver Wyandottes, White Leghorns, Black Minorcas, pure bred, good layers. Eggs \$1 per 13; \$5 per 100. W. H. Frey, Jr., Box 55, Milltown, N. J.

EGGS for hatching, R. I. Reds and Bucks County, \$1 for 13. C. R. Dutton, Westminister, Mass.

EGGS from W. P. Rocks, extra large, pure white, yellow legs, \$1 per sit; \$3 per 100. Fine cock's, \$2 ea. Mrs. A. T. Chamberlain, Westboro, Mass.

BUCKS COUNTY eggs for hatching, 15, \$1; 100, \$5. A. R. Buckman, Bolton, Mass.

W. AND B. Rocks, finest str's. Eggs \$1.50 for 15. Peach Grove Poultry Yards, Hiram, Mass.

BEST EGGS from utility trio \$3 per 13; \$5 per 26. Asiatic, American, European, Lt. Brahma—Felch, William, Rollins, Comey. Golden Wyand., McKean, Brackenbury, Black Minorca—Duff Wood. All pedigreed birds bred by Mrs. Clara M. Blsbee, 75 Clarkson St., Dorchester, Mass.

EGGS for hatching. White Wyand., Buff P. Rocks, Buff Leg., \$2 per 15; 50 for \$5; incu., \$5 per 100. Joel Brunner, 1316 Linden St., Allentown, Pa.

FOR INCUBATORS. Wh. Wyandottes exclusively, 200 laying hens, brown egg, above standard weight; no fancy; bread winners. \$4 per 100. Circular free. J. A. DeMar, Silver Lake, Mass.

OUR W. Wyand. and W. P. Rocks grow fast, are very prolific, 13 eggs \$1. N. E. Whiting, Norwich, Ct.

WHITE WYANDOTTES (Duston strain). White P. Rocks (Pollard, Bevin, and other strains). Eggs, \$1 per sitting; \$3 per 100. H. L. Wimperver, 2d. P. O. Box 75, Edgartown, Mass.

LINDEN LAWN Farming Co., Ohev, Illinois, breeders of Wy., Wh. Leg., Pekin ducks, Bronze turkeys. Orders booked for eggs from choice matings

Likes White Wyandottes.

Mr. Editor:—I have been a reader of FARM-POULTRY for about three years, first getting copies at the news dealers, and became interested, so that I am now a subscriber. I am very much pleased with F.-P. and its teachings. I see in nearly every issue an egg record of some variety of fowl, but mostly of the Plymouth Rocks and Wyandottes.

Thinking it might interest F.-P. readers, I would like to give the egg record of five White Wyandotte pullets, hatched about the first of June; commenced laying the 16th day of December, 1897.

Egg record as follows:

December, from 16th,	28
January,	114
February,	119
March,	102
April,	57
May,	91
June,	84
July,	105
August,	83
September,	78
October,	93
November,	40
December, to 16th,	8
Total,	1,002

Not having any hens that would sit early, I was obliged to set three of the five pullets. Set first hen March 24th; second, April 8th; third, April 22d—the two first put back in the yard soon as they hatched out the chicks; the third hatched and brooded her chicks, and commenced laying again in six weeks. Sold most of my eggs for hatching. This is what I set for myself:

Set 185 eggs; hatched 164 chicks; raised 145 chicks; lost 19 under four weeks of age—cock-erels 67, pullets 78.

I have now two pens of twenty-five pullets each, that I am keeping a record of from the first of January. I did not get them separated until the last of December, but they commenced laying the 20th of October, so you see I lost all the early fall laying, and then putting them in their new quarters put them back some. This is their record for January: Pen No. 1, 350; pen No. 2, 359. I breed Leghorns; but find the 'Dottes fully up to them as layers, and superior to them in some other qualities.

T. K.

Waverly, N. Y.

A January Egg Record.

Mr. Editor:—Perhaps your readers would be interested in an account of what a farmer's pullets can do down in this cold place. I have them in a building 20 x 60 feet, two stories; the building is not very warm, being built twenty-five years or more before they knew how to build hen houses down here. I have sixteen full blooded White Wyandotte pullets and one cockerel, with no inbreeding, in a pen 12 x 12 feet, in the southwest corner. The building fronts southeast; they don't have the front, and have been in that one room all winter, except a part of four days; they were out doors a short time ago. They commenced to lay in November, and laid so well I got surprised before December was out; am sorry that I neglected to keep a record for those two months. If I had, think I might have had a year's record worth showing. There were four broody during the month, one the 1st, the 17th, 18th and 28th. I think there were others laid out because of a few small eggs. Here is their January record:

1, 9	9, 8	17, 12	25, 9
2, 12	10, 11	18, 11	26, 12
3, 7	11, 9	19, 8	27, 8
4, 12	12, 7	20, 10	28, 9
5, 10	13, 10	21, 10	29, 13
6, 6	14, 11	22, 10	30, 13
7, 13	15, 6	23, 10	31, 5
8, 12	16, 10	24, 12	—
Total,			305

Made this record without any green cut bone, cut clover, or clover meal—not even an open scratching shed, yet there has never been an ailing one since they hatched. If they could have had the bone, clover, and scratching shed, do you think they would have doubled the egg record? I am a subscriber and reader of FARM-POULTRY.

Pownal, Me.

J. A. S.

[That is a good showing for January, and we wish you had kept the November and

December record also. Keep a full year's record; it pays.

Whether the addition of cut clover, bone, etc., would have increased this January egg yield, is doubtful; but the addition of those foods would have sustained the animal vigor, and probably kept up the egg output. The birds laid well at the outset, because they have the laying habit bred into them. To have the egg yield continued throughout the year, the waste must be made good. You have got to supply new material to prevent exhaustion.—Ed.]

Frostbite.

Mr. Editor:—I have a S. C. W. Leghorn pullet that has been in perfect health and laying since the middle of December, but within the last twenty-four hours her wattles and side of the face and ear lobes have turned a yellowish purple. She has stopped laying, but seems perfectly healthy otherwise. Comb bright red, and she is as spry as the rest. What is the trouble, and what can I do for her?

J. S. P.

Bridesburg, Pa.

[Trouble is probably frostbite. Anoint the affected parts with vaseline. As she seems all right otherwise, allow her to run with rest of flock and have same care.—Ed.]

Munsey, N. Y., Feb. 3d, 1899.

S. B. Corby, Mgr. Plainfield Poultry Farm Co., Plainfield, N. J., Dear Sir:—After two years of almost constant business dealings with your company, it gives me pleasure to state that after buying large quantities of eggs from almost all the noted breeders in this country, I have obtained most satisfactory results from the eggs purchased from you. Many of the chicks produced from your eggs, I would not hesitate to class with any of the prize winners at the Madison Square Garden, New York show, now in progress. As to their laying qualifications, I firmly believe you have in your possession the most prolific laying strains in this country today. I desire to thank you for your most liberal methods of doing business, and for the prompt attention given my orders, and, as a proof of my appreciation, I herewith request that you ship me five hundred more White Wyandotte eggs and three thousand Pekin duck eggs at the prices quoted.

Wishing your mammoth farm a continuance of the popularity which you are now enjoying, I remain, yours very truly,

C. S. TIEDEMANN.

Overlook Poultry Farm.

Remember that the Bowker's Animal Meal is sold only in yellow bags and yellow packages. The original; richest in protein.

Bessom & Craig, of Lynn, Mass., have increased their facilities for breeding this year, and have some splendid yards of Buff Rocks, Buff Leghorns, and White Wyandottes.

We are in receipt of a note from A. E. Hutchinson, of Gilead, Conn., informing us that he has purchased the entire breeding stock of White P. Rocks from Frank W. Bevin, E. Hampton, Conn.

Mr. Bevin had bred these White Rocks for years, and as he had some fine birds, we believe Mr. Hutchinson ought to make a record for himself, and we wish him success.

Will Chicks Hatched Artificially Develop Into High Class Show Birds?

Some years ago the writer read in a poultry journal an article from the pen of one of our oldest breeders, in which it was stated that chicks hatched by an incubator could not mature into high class show specimens of equal quality to those hatched by hens. This statement has always claimed my thought, and for years it has always been my wish to test the facts in the case. The past year the opportunity presented itself for the trial.

In February last, we purchased for Elmwood Farm a Star Incubator, in which during the past season we made a number of hatches; in every hatch the machine produced as great a per cent of living chicks as was produced during the same period from eggs from the same yards, under hens. The chicks hatched by the machine were just as fine looking, and grew as well as those

hatched under hens. No moisture was used at any time during the season within the machine, and the four thermometers in different parts of the machine all registered as near alike as possible for any four registers under any conditions to correspond.

The chicks were reared side by side, and all fed alike, and it is now impossible to detect any difference in the grown fowls. Some of the very best specimens we have are those hatched in the machine. Some of the specimens so hatched have worn blue ribbons at fall fairs, and others have spoken their quality at the early winter shows. We have been able to show some specimens that proved beyond all question that fowls hatched in an incubator can win in close competition.

New York City. T. F. MCGREW.

Business Good.

Business is good at Hartnest Farm. Mr. Silberstein writes that he has disposed of most of his surplus stock. He bought third and fourth prize cocks at Boston to head two of his breeding pens. All breeding pens are mated up, and he hopes to get out a big flock of youngsters this season. No. 61 is laying, and has made a fair start on another record breaking year.

Moral:—“Advertisers in FARM-POULTRY get results.”

Burpee's Farm Annual for 1899.

In advance of the coming planting season, the Seedsmen and Nurserymen are now sending out their Spring Catalogues. One of the best of these, and the coming of which is a matter of great interest to Gardeners all over the country, is BURPEE'S FARM ANNUAL, issued by W. Atlee Burpee & Co., Seed Growers, Philadelphia, Pa. It is of convenient size, finely illustrated, neatly printed, and full of interesting information, as well as a price list of “The Best Seeds That Grow.”

The present issue has been greatly enlarged, the added space being devoted to giving cultural directions and useful planting tables. A large number of new and improved varieties of both Vegetables and Flowers are offered, noticeably the first of a new race of Bush Sweet Peas, having the freedom of bloom and large flowers of the tall sorts, but growing only fifteen inches high, and does not require support. This is beautifully illustrated in a colored plate.

Several new varieties of the Dwarf Trailing Cupid Sweet Pea, are also offered for the first time.

In Vegetables, a fine new Bean, a grand new Tomato, a new hardy Table Corn, a large fruited Water Melon of superior quality, and several grand new garden Peas, and a number of other choice novelties are offered and illustrated from actual specimens.

This firm, while conservative in introducing new varieties until their merit has been proved by extended trials both in their own fields and the hands of their customers, send out, each year, a large and exceedingly varied list of Novelties, and the strongest testimonial of their great care in selection of these introductions is the large number of those first introduced by the firm, which are now standard varieties offered by all leading seedsmen. This catalogue is mailed free to all customers at the beginning of the year, and to all applicants interested in gardening. A request on a postal card will bring you a copy by return mail.

Buy the Best.

If you want the best low down wagon you should buy the Electric Handy Wagon. It is the best because it is made of the best material; the best broad tire Electric Wheels; best seasoned white hickory axles; all other wood parts of the best seasoned white oak. The front and rear bonnets are



made from the best angle steel, which is neater, stronger, and in every way better than wood. Well painted in red, and varnished. Extra length of reach, and extra long standards supplied without additional cost when requested. This wagon is guaranteed to carry 4000 lbs. anywhere. Write the Electric Wheel Co., Box 189, Quincy, Illinois, for their new catalogue, which fully describes this wagon, their famous Electric Wheels, and Electric Feed Cookers.

MINORCAS.

S. C. Black Minorcas, standard bred for layers of large white eggs. Young stock have free range of fifty acre farm, and are strong and healthy, with exceptionally brilliant plumage. For the past 9 years have bred B. Minorcas exclusively. Eggs from PH strain (imported birds), special mailings, 15 eggs for \$2.50; two or more sittings, \$2 for 15. Royal and Cornell strains direct, \$1 for 15; eggs for incubator purposes from above strains \$5 per 100. Stock for sale.

Mrs. GEO. E. MONROE,

Member B. Minorca Club.

Dryden, N. Y.



BRABAZON'S POULTRY CATALOGUE
FREE! It's a beauty, over 50 colored plates, illustrations and describes fine Turkeys, Geese, Ducks and chickens, gives prices of fowls & eggs. Finest Buyer's Guide published. Inclose 10c. for postage, etc.
J. R. Brabazon, Jr. & Co., Box 3, Delavan, Wis.

FERRY'S SEEDS

were famous years ago—their fame grows every year—as the seeds most to be relied on—as always the best. For sale by leading dealers everywhere. Five cents per paper and always worth it. Insist on having them. Run no risk—buy Ferry's. 1899 Seed Annual is free. D. M. FERRY & CO., Detroit, Mich.

CHOICE CUT CLOVER.

Well cured and cut in 1 and 1/2 inch lengths, \$1.25 per 100 pounds; \$5 per 1/2 ton; \$10 per 1 ton. Send for circ. C. A. STEVENS & CO., Wilson, N. Y.

HOLMES'

W. Wyandottes and S. C. W. Leghorns

Won their full share of the honors this season at Newtown, Ct.; Danbury, Ct.; Milford, Mass.; New Haven, Ct.; again at Danbury, Ct.; and at Lenox, Mass. They had some good company, too. Eggs from my choice mailings, one sitting \$1.50; 3 sittings \$4. My new booklet, now on the press, tells all about them and their winnings, and is free for the asking.

R. H. HOLMES, W. Redding, Conn.

DWINNELLS'

WHITE WYANDOTTES

Won at Haverhill, Dec. 27-30, '98, special ten highest scoring birds, (score 931) 4th ck. 4th hen, 1 (954), 4 pul.; 1 collection. At Boston, Jan. 17-21, '99, 4th cock. Eggs, \$2 per 13; \$5 per 39. Breeding cock's left for sale. P. E. DWINNELLS, Groveland, Mass.

P. O. Box 4.

Do You Want Layers?

My thoroughbred Buff Plymouth Rocks and Silver L. Wyandottes; good as the best. Regular beauties. Eggs, \$1 for 13, carefully packed. Circulars free. J. G. STAUFFER, Palmyra, Pa.

SEED DUE BILL FREE

Get new customers to test my seeds. I will mail my handsome catalogue for 1899, lithographed and beautifully illustrated, and a 10c. Due Bill, good for 10c. worth of seeds for trial, absolutely free. It is full of bargains. All the Best Seeds, Bulbs, Plants, Roses, new Fruits, Farm Seeds, Potatoes, etc., at lowest prices. Ten Great Novelties offered without names. I will pay \$50. FOR A NAME for each. Don't buy your stock until you see this new catalogue. Several varieties shown in colors. Great inducements for orders this year. You will be surprised at my bargain offers. Send your address on Postal to-day. Tell your friends to send too. Old customers will receive a copy. F. B. MILLS, Seedsmen, Box 48, Rose Hill, N. Y.

WANTED.

Ladies and gentlemen to procure subscriptions for the best fifty-cent woman's monthly magazine in the United States. The most beautiful and popular woman's magazine on very liberal commissions. Terms, sample copies, special helps and premiums furnished free. THE AMERICAN QUEEN, 78-80 Walker St., New York.

CRUSHED OYSTER SHELLS,

50c. per hund.; ground fine, 30c.; Bone, Grit, Scraps, Charcoal, Bone Cutters, etc. Send for reduced price list. J. H. SLACK, Mfr. Poultry Supplies, Box 329, Bloomsbury, N. J.

CHOICE LIGHT BRAHMAS.

Stock and Eggs For Sale.

Winners at Boston show, 1897, '98, '99.

FRANK P. HILL, Allston, Mass.

FOGG'S

SINGLE COMB WHITE LEGHORNS.

Fifteen nice big breeding cockerels must be sold at once to make room, at \$1.50 each. Pullets, now laying, 10 go for \$2 each. Hens, a few good ones at \$1 each. Eggs from carefully mated yards, \$2 per 15. My birds have not been weakened this season by exhibiting.

WOODLAWN POULTRY YARDS, CHAS. J. FOGG, Waltham, Mass.

Two For \$1

We will send

American Poultry Journal

and

Farm-Poultry,

both one year for \$1. The regular price of American Poultry Journal is 50 cents and Farm-Poultry \$1 and you save money by sending us your subscription.

Farm-Poultry,

Boston,

Mass.

U. S. A.

LADIES WANTED to take up stamping at home. We pay 10 cents an hour while learning. H. F. JONES, Dept. E. N., Brooklyn, N. Y.

A Boy's Experience.

Mr. Editor:—My experience for two years with poultry might interest your readers, and encourage some of the young folks to engage in the business in a small way, as I have done, for both pleasure and profit. I am now twelve years old, so you will understand it was necessary for me to ask advice frequently—but anyone can have this privilege. I have taken entire care of the chickens—cleaning their house, feeding and cutting green bone for them. I have had assistance in dressing the few chickens I have raised for market.

My father provided a very convenient house for my poultry, following to some extent the plan shown in Bulletin No. 30 of the North Carolina agricultural experiment station, entitled, "Poultry Keeping for Profit."

I will describe the building in a later account if you desire. The chickens have a running space of about five hundred square yards, enclosed with chicken wire. On Dec. 29, 1896, my father purchased from a farmer a mixed lot of chickens, mostly Black Langshans; among them were nine cockerels hatched during the previous spring and summer, and twenty-nine hens, nearly all old, some of them probably several years of age. These were charged to me at \$19.35. I prepared for market during January all of these except one cockerel and eighteen hens. I bought all feed during the year, as well as a bone cutter for \$5, and all eggs were sold at market prices prevailing here during the year, ranging from twelve cents to thirty cents per dozen. The receipts and expenditures for the year are as follows:

RECEIPTS, 1897.

Chickens sold, including	
broilers,	\$29.54
199½ dozen eggs,	34.69
	\$64.23

EXPENDITURES, 1897.

Chickens,	\$19.35
Bone cutter and freight,	5.35
17 bu. corn,	7.05
12½ bu. wheat,	8.25
4 bu. oats,	1.34
115 lbs. buckwheat,	1.25
125 lbs. wheat bran,	.91
100 lbs. corn meal,	.83
½ bu. rye,	.25
21 lbs. rolled oats,	.75
125 lbs. green bone,	.69
Miscellaneous, including eggs for setting,	2.24
	\$48.26

Balance,

\$15.97

STOCK ON HAND JAN. 1, 1898.

9 old hens, at 50c.,	\$4.50
8 Bar. Ply. Rock pullets, at 60c.,	4.80
1 Langshan pullet, at 60c.,	.60
3 White Leghorn pullets, at 50c.,	1.50
1 Barred Ply. Rock cockerel,	.75
1 White Ply. Rock cockerel,	.75
	\$12.90

Total profit for 1897,

\$28.87

RECEIPTS, 1898.

Chickens sold, including	
broilers,	\$16.70
198 5-6 dozen eggs,	36.42
	\$53.12

EXPENDITURES.

Cost of chickens, as per inventory,	\$12.90
20 bu. corn,	9.53
10½ bu. wheat,	8.60
170 lbs. hulled oats,	3.40
2½ bu. buckwheat,	2.26
60 lbs. bone,	.30
30 lbs. oatmeal,	.75
100 lbs. wheat bran,	.88
25 lbs. corn meal,	.24
Miscellaneous,	.56
	\$39.42

Balance,

\$13.70

STOCK ON HAND JAN. 1, 1899.

9 hens,	\$4.30
16 pullets,	9.60
2 cockerels,	1.50
Value of feed on hand,	1.10
	\$16.50

Balance profit, 1898,

\$30.20

I set seventy eggs in 1897, and hatched forty-eight chicks; and in 1898 I set forty-one eggs, and hatched thirty-two chicks. I consider that the manure fully equaled in value the table scraps and refuse vegetables from the garden used as feed.

GEORGE B. COMFORT.

West Chester, Pa.

That Article on Colds.

Mr. Editor:—Thank you very much for your reply to my inquiry regarding hens. Found in January 1st F.-P. the only explicit and detailed account of the symptoms and treatment of catarrhal diseases of hens I have ever seen. Dr. Woods' article is worth to me ten times—or more—F.-P.'s subscription price. I have yet to see an article on the same lines that gave such detail to the symptoms of influenza, canker, roup, bronchitis, etc., so that a novice like myself could establish the name of the disease at once. When I was a boy and had fancy hens, I used to go into Boston and buy some of Jacob Graves' roup pills whenever my hens were affected. I found that the hen I thought suffering from roup to have canker. The others had influenza. Got it under control at once with the hydrogen-dioxide mixture, and by using the acetonite-spongia-bryonia-alcohol mixture in drinking water.

H. M. H.

Winchester, Mass.

A Change of Ownership.

We wish to call the attention of our readers to the advertisement of W. J. Adam in this issue. This gentleman is advertising a green bone cutter over his own name. Wish to explain that this Adam bone cutter was formerly the Premier, and is therefore not entirely unknown to our readers. Mr. Adam recently purchased the entire business, and removed it from Cazenovia, N. Y., to his factory at Joliet, Ill., where, with every facility for manufacture, he is prepared to supply the demand for this popular machine. This is the machine, and the only one of its character so far as we know, that is equipped with ball bearings, which makes it run so easily. We know this machine to be a good and reliable one, and can say that Mr. Adam comes to our columns well recommended; and we ask generous treatment for him at the hands of our readers.

On another page of this issue of FARM-POULTRY, will be found the advertisement of the Belcher Taylor A. T. T. Co., of Chicopee Falls, Mass.

The ad. sets forth the merits of their Chicken Feed Cutter, a machine designed for the express purpose of preparing clover or mixed hay or dried grass for feeding to poultry. The machine is not in any sense a plaything, but a strong durable machine that will stand up to the work for years. It cuts in three convenient lengths, and is quickly and easily adjusted or changed from one length of cut to another.

We need not speak of the advantages of feeding cut clover hay to poultry, as that subject is thoroughly understood by our patrons. If you don't know, however, where to get a machine that will perform the work to a nicety, write these people as above, and ask for circulars and prices.

The Mascotte Incubator Co., of Bedford, Ohio, seem to be entirely warranted in making the assertion that the Mascotte was "a good thing to have on hand," if one is to judge by that firm's success.

They report that they have been barely able to keep up with their orders by running their factory at its fullest capacity, and that now they are running both night and day. The Mascottes are standard machines of the hot water type, and are finished in the highest style known to the art. In hatching and brooding they leave nothing to be desired, if we were to judge by the testimony of those who have used them, and should therefore know them best. Write these people for new catalogue, which gives full details of construction, etc.

POULTRY SUPPLIES

Mica Crystal Grit, - - - Per 100 lbs. \$.75
Crushed Oyster Shell, Per 100 lb. bag, .75
Ground Bone, - - - Per 100 lb. bag, 2.00
Pike's Lice Destroyer, per gallon, .75
We make lower prices for large quantities.
Send for Descriptive Circulars.
SHIP US YOUR... **POULTRY AND EGGS**
SPRAGUE COMMISSION CO.,
218 South Water St. Chicago, Ill.

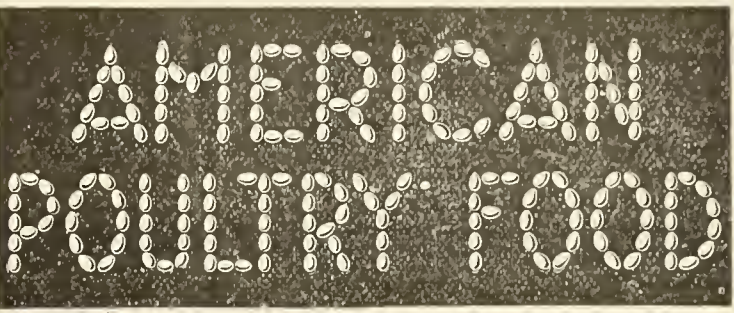


Sold only in these Sealed and Branded Sacks.

FOR A MORNING MASH.

It Makes Hens Pay

The immense saving of time in using a ready-mixed food is, in itself, a great consideration. The absolute knowledge that American Poultry Food is scientifically combined under an exact formula, and is always the same, is another reason for its popularity among careful poultrymen. Besides it is kiln dried, which prevents its spoiling, and insures its palatableness. The process of its manufacture concentrates and increases its feeding value and assists digestion. **A morning mash.**



We freely offer the services of our Feed Expert to assist in the solution of all questions pertaining to the proper feeding and care of poultry, and invite you to write us on such matters, carefully stating your difficulties.

Practical Poultry Feeding, a little book covering a wide range of subjects of vital interest to Poultrymen, will be sent you free, post paid, on request. Address, **SCIENCE DEPARTMENT,**

The American Cereal Co.
1355 Monadnock Bldg., Chicago, Ill.

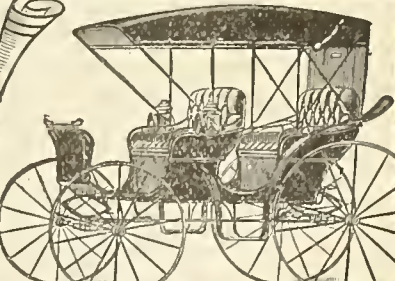


WE HAVE NO AGENTS, but have sold to the user direct at factory prices for the past twenty-six years. We ship anywhere for examination. **Everything Fully Warranted.** We are the largest manufacturers of vehicles and harness in the world selling to the consumer exclusively. Our line consists of Rockaways, Surreys, Taxis, Phaetons, Stanbopes, Driving Wagons, Top Buggies, Open and Top Road Wagons, Spring Wagons, Delivery Wagons, Milk Wagons, Wagonettes and all styles of Harness.

Send for Large Free Catalogue.

ELKHART
Carriage and Harness Manfg. Co.,
W. B. PRATT, Secy. ELKHART, INDIANA.

This Extension-Top Surrey with double seaters, complete with side curtains, aprons, lamps, and polo or shafts, for \$72. Just as good as retails for \$110.



EVANS VEGETABLE AND ROOT CUTTERS

Hens consume large quantities of grass and other green food when they can get it. They can't get it in the winter when every green thing is frozen up. Our Vegetable and Root Cutter supplies these deficiencies. It cuts all kinds of roots and vegetables—beets, carrots, turnips, cabbage, potatoes, etc., into fine pieces like angle-worms. All fowls, big and little, eat them easily and greedily and thrive upon them. They double the egg crop and make hens lay in the middle of winter when eggs are worth the most money. Feeding roots thus prepared saves 50% of the grain feed. They turn easy, cut fast and last indefinitely. One will pay for itself quickly in the increase of eggs it will produce. Made in four sizes. Price, \$1. and up. Leading poultrymen and editors endorse it. Circulars free.

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Mongrels Lay Well.

Mr. Editor:—You say that thoroughbred fowls are away ahead of mongrels for laying; I don't think they are. I think that people who keep mongrels do not take as good care of them as the people do of their thoroughbreds. I have a pen of mongrels which I have kept a record of, and I think it will compare favorably with any pen of thoroughbreds in your Experiment Club that has been housed and yarded the same.

My house is 18 x 8, and pen 40 x 40; my pen is all trees, and the sun never shines in it; the land doesn't belong to me, so I cannot remove the trees. I can't let the fowls run, and all the grass they get is what I pull and throw over to them. I had to buy all the green stuff they got, but it pays just the same.

I averaged twenty-three hens, some two and three years old. They laid 4,337 eggs last year, which was an average of 188 plus each. It cost about \$2 each to feed them, and they brought in \$4.31 each, so they cleared fully \$2.31 each. I had to pay \$2.25 per hundred for wheat most of the time, and I had to buy green stuff in the summer as well as the winter. Of course I took good care of them, and I think if those who keep mongrels will take as much care of their hens as those who keep thoroughbreds, they will get just as good results. I have been in the poultry business only two years, and I expect to reach the two hundred egg mark next year.

FARM-POULTRY is all right. I wouldn't be without it. J. R.

Ashton, R. I.

[That is a good showing. We congratulate you upon your success, and your determination to reach the two hundred eggs a year mark. We believe, also, that you are right as to the indifferent care many keepers of mongrels give their flocks. Better care and better food, backed by better breeding, is what will swell the profits of poultry keeping.]

Here is where the argument for thoroughbreds is strongest, namely, that they have better breeding,—are bred for a purpose. If people will take better care of thoroughbreds, that of itself is sufficient ground for recommending thoroughbreds; but when is added to that the argument of better breeding, being "bred for egg production," just as cows are bred for milk and butter production, we have a very strong argument in favor of thoroughbreds. Then there is the better quality of the meat,—and more of it; better consider all sides of the question.—ED.]

Very Common Troubles.

Mr. Editor:—It has been but a short time since I subscribed for your paper, and as I am in a little trouble with my hens, I shall esteem it a favor if you will answer a few questions. My hens are Barred P. Rocks, six pullets and a cock, of a pure strain.

1st. They are troubled with a slight cold at times; one eye will close for a day or two, and then open again. What shall I do for them?

2d. They have not laid an egg since I have had them, although they were early hatched, and are over seven months old. I have had them two months. I feed them a mash in the morning, about a pint and a half in all, consisting of one part corn meal, one part middlings, one part bran, one part prepared meat meal ("B. B. & B.") At noon I give them a little dry bread, and at night about a pint of dry grain, whole corn and wheat, equal parts. They do not seem fat; in fact they are always ready for another morsel, but no eggs.

3d. My rooster has a frozen comb; what shall I do for it? People tell me he will be all right in the spring.

4th. Please send me a receipt for some powder that I can mix up and use for lice, by dusting through their feathers. My hen house is always clean, light and dry, and never damp or dark. I let my hens out every day, but they prefer to stay inside until nearly noon. They have crushed oyster shells and mica crystal grit before them all the time, and fresh water always. Once in a while I cut fresh bone for them, but I am nearly tired of it, for there are no returns, or even any signs of any. A. G. B.

Plattsfield, Mass.

[You will find your questions substantially

answered in the article, "Colds and Roup," in January 1st FARM-POULTRY; and "Why Don't They Lay," in January 15th FARM-POULTRY. Still, your pullets may not be laying because they may be of late maturing stock. That is, they may be fancy bred, by which we mean they have been bred for show purposes, and, as a rule, the show bred stock is not wanted to mature early, since it is at its best (or appears at its best), about the period of maturity; hence January is the best time for birds bred for the shows to be at their best. We know that some poultry breeders keep the birds back from maturing by changing their quarters, or by scanting the food ration, so that they shall be mature at the right time for the show season. Obviously, stock thus raised, will transmit the habit of slow maturing to its off-spring, and it is not impossible that you have got stock that has that habit bred into it.

Again, the stock may have been poorly handled before it came into your hands, by being underfed, or improperly fed, or handicapped by supporting a burden of lice, or kept in filthy coops. There may be a dozen reasons why they do not lay; but we would suggest that you set them to work for their food, as is recommended in the article, "Feeding Fowls for Eggs," Nov. 15th, '97, FARM-POULTRY. You say that your pullets do not seem fat, and that they are always ready for another morsel. That is one of the peculiarities of P. Rocks; they are great eaters, and are always ready for more.

3d. Anoint the frozen comb with carbolated vaseline once a day for a week; carbolated vaseline is an excellent remedy for frost bites.

4th. Buy Lambert's Death to Lice. It is made chiefly of fine tobacco dust and super-carbolate of lime; but you can buy the prepared powder cheaper than you can get the ingredients and mix them. It does not pay the individual to compete with the large manufacturer, who buys by the wholesale and mixes by machinery.—ED.]

Small Eggs from a White Guinea-White Leghorn Cross.

Mr. Editor:—The following statement is from extracts from records for forty-three Single Comb White Leghorn pullets hatched between March 30 and July 7, 1897, with free run until November 1st, when they were housed. Pullets began laying latter part of October. The latter part of December they laid about fifteen eggs a day. Of this number four to six were small eggs of all shapes, some no larger than a small marble, and as round; others were long like snakes' eggs, but larger at one end. The majority of these small eggs were shaped like a quail's, but a little larger. This continued until July 6th, '98. In the meantime I had tried to find out the cause, not wishing to kill them if it was not necessary. I decided that they were too fat, as they had been kept with the cockerel while fattening the latter. In the orchard where they had been reared was a wire fence with boards at bottom, under which they had dug holes, and when the hens on the outside were fed they would crawl under. I thought this the cause. In the early part of July last I concluded to detect and kill the guilty ones, and reduced the flock to thirty-four. Since reducing the flock have had no small eggs. All of those killed I had detected in laying small eggs. Had I killed these pullets in the spring I would have found out then what the matter was.

I had two male guinea fowls. They had been allowed free run, and my Leghorn hens had been allowed free run on pleasant afternoons. The first pullet detected laying small eggs had a tail pointed downward the same as a guinea, and I supposed it had an injured back, but it proved to be the guinea formation. Dressing these pullets proved without a doubt that they were part guinea. These pullets were a year old at the time they were killed, and had laid nothing but eggs a trifle larger than quail eggs. F. W. L.



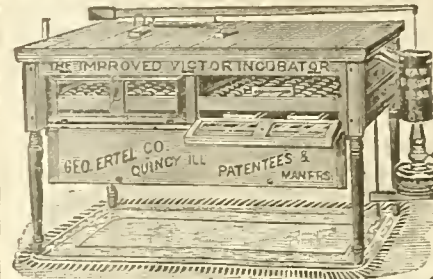
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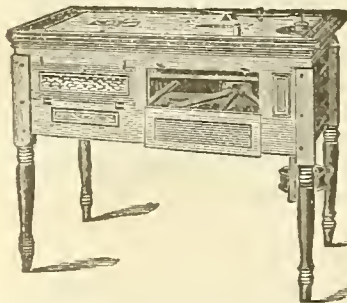
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